

FIG. 1

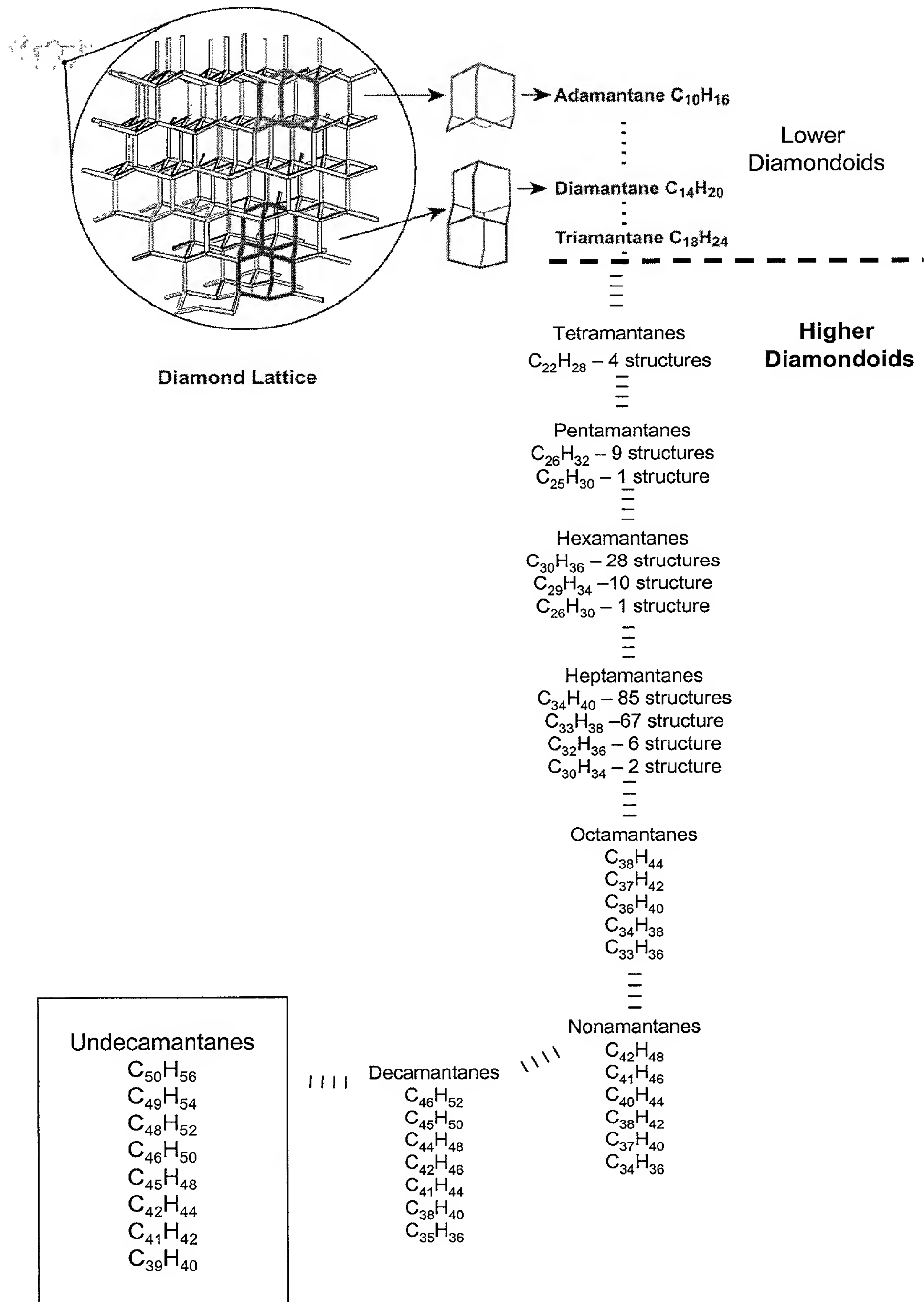


FIG. 2

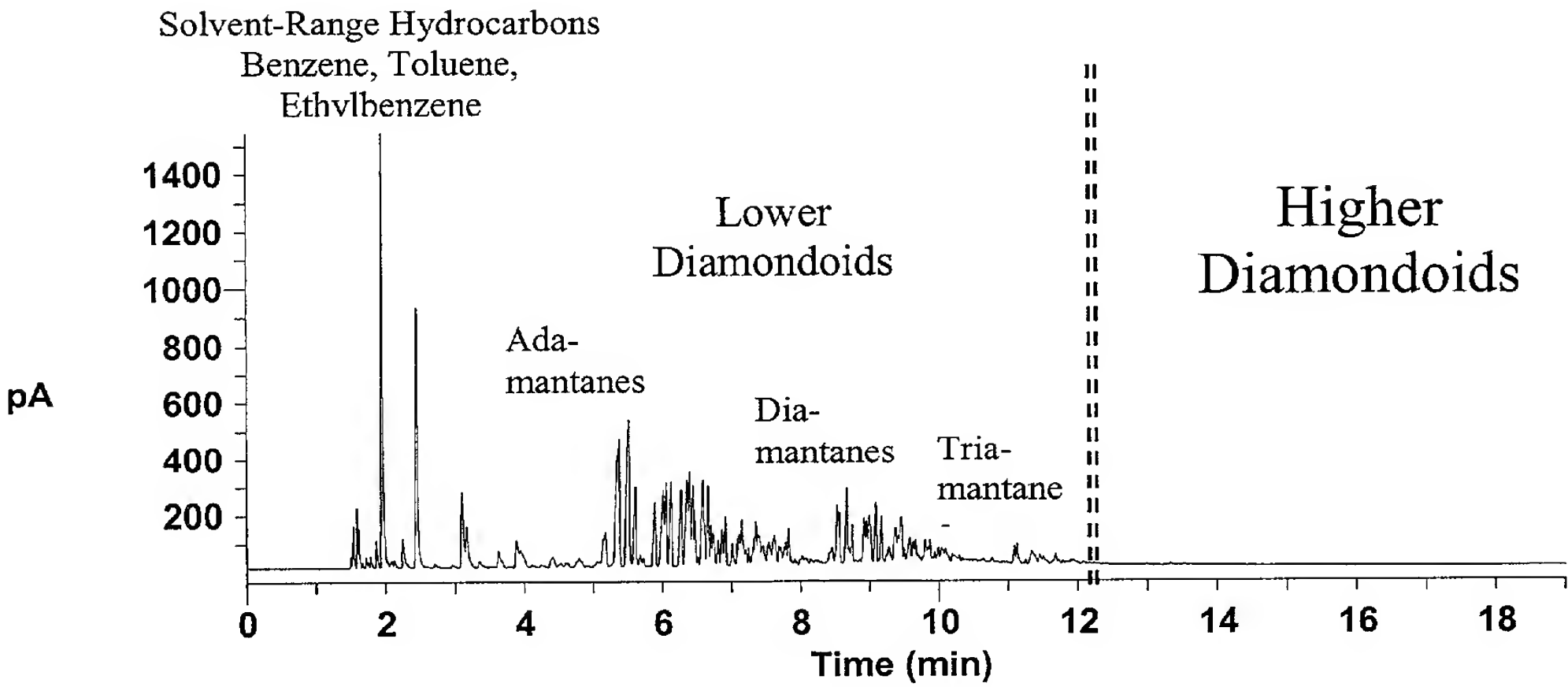
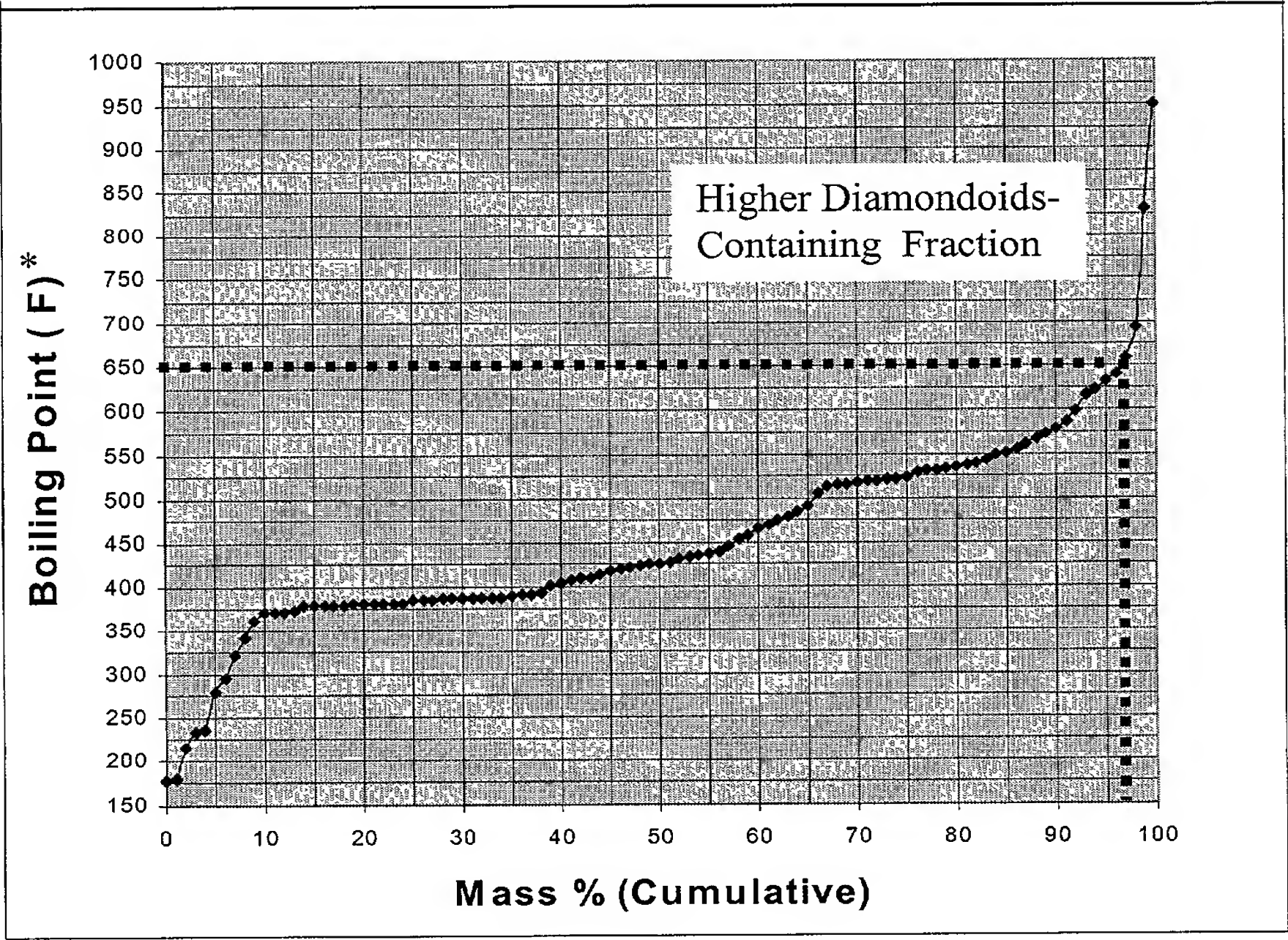


FIG. 3

SimDis Yield Curve for Feedstock B



\* Atmospheric-Equivalent

FIG. 4

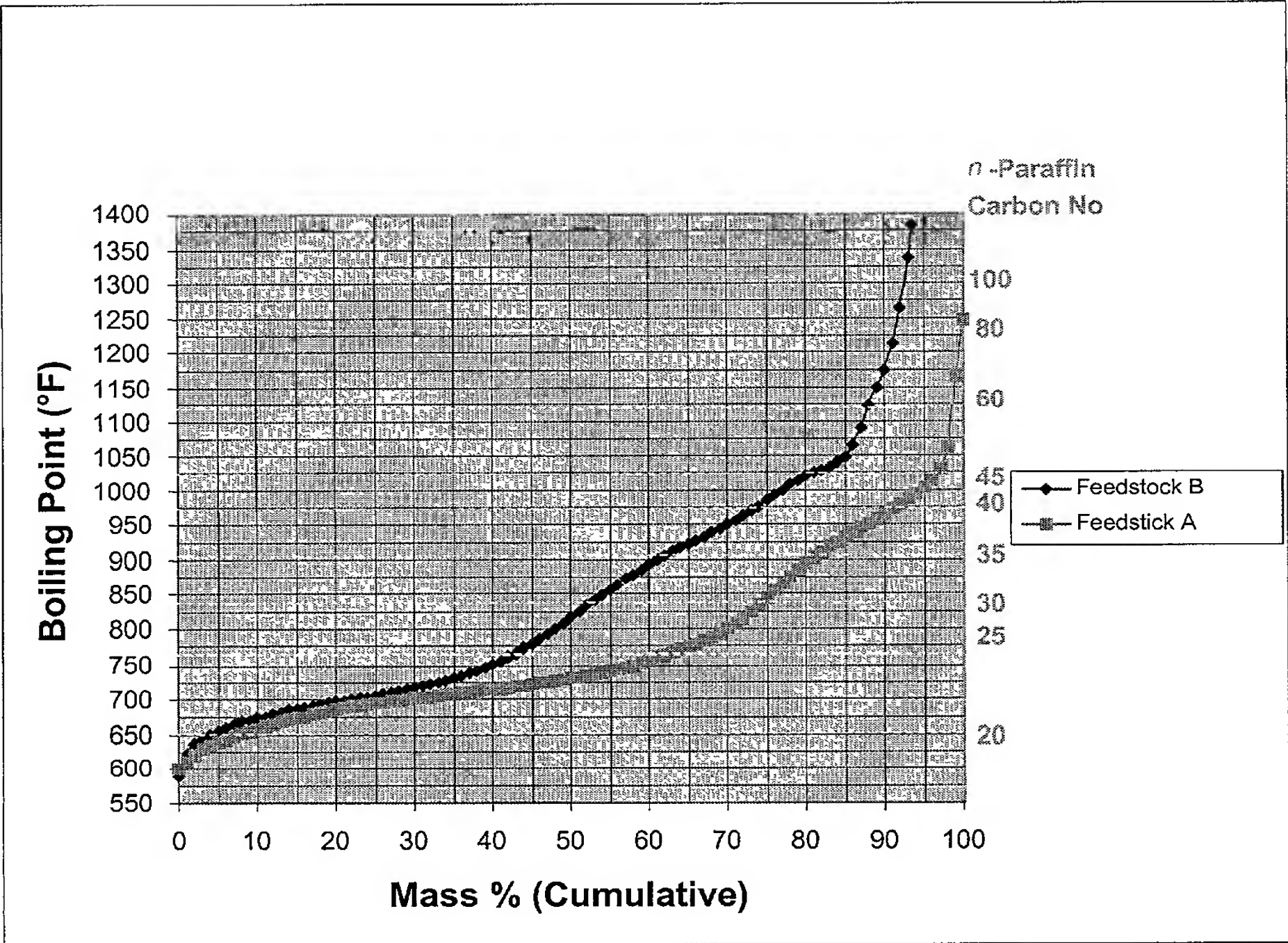


FIG. 5

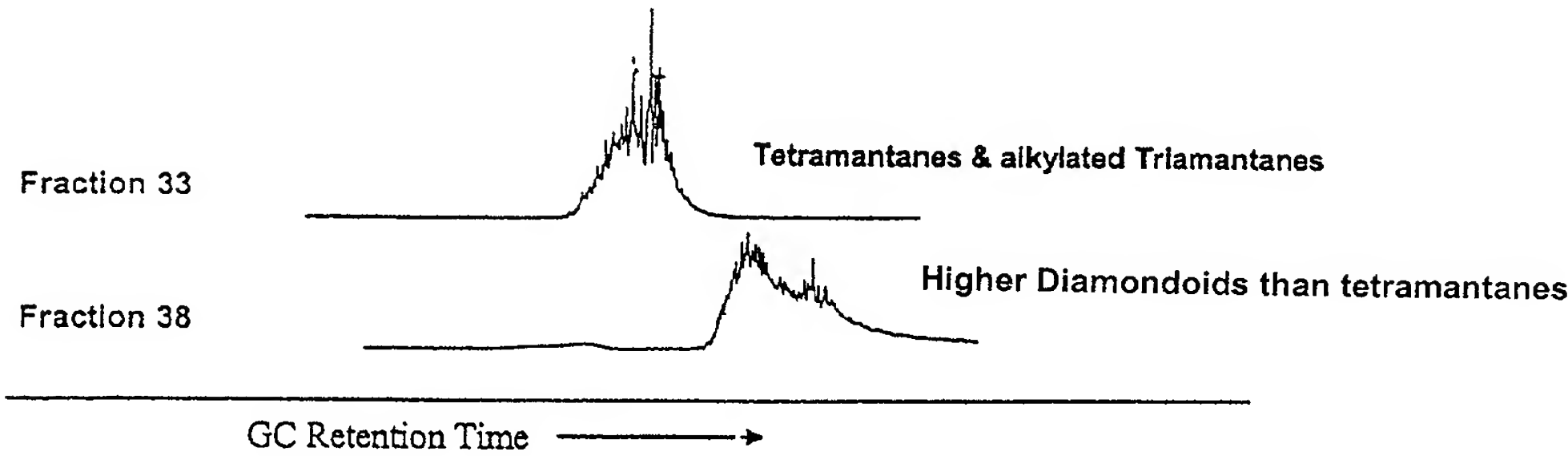


FIG. 6

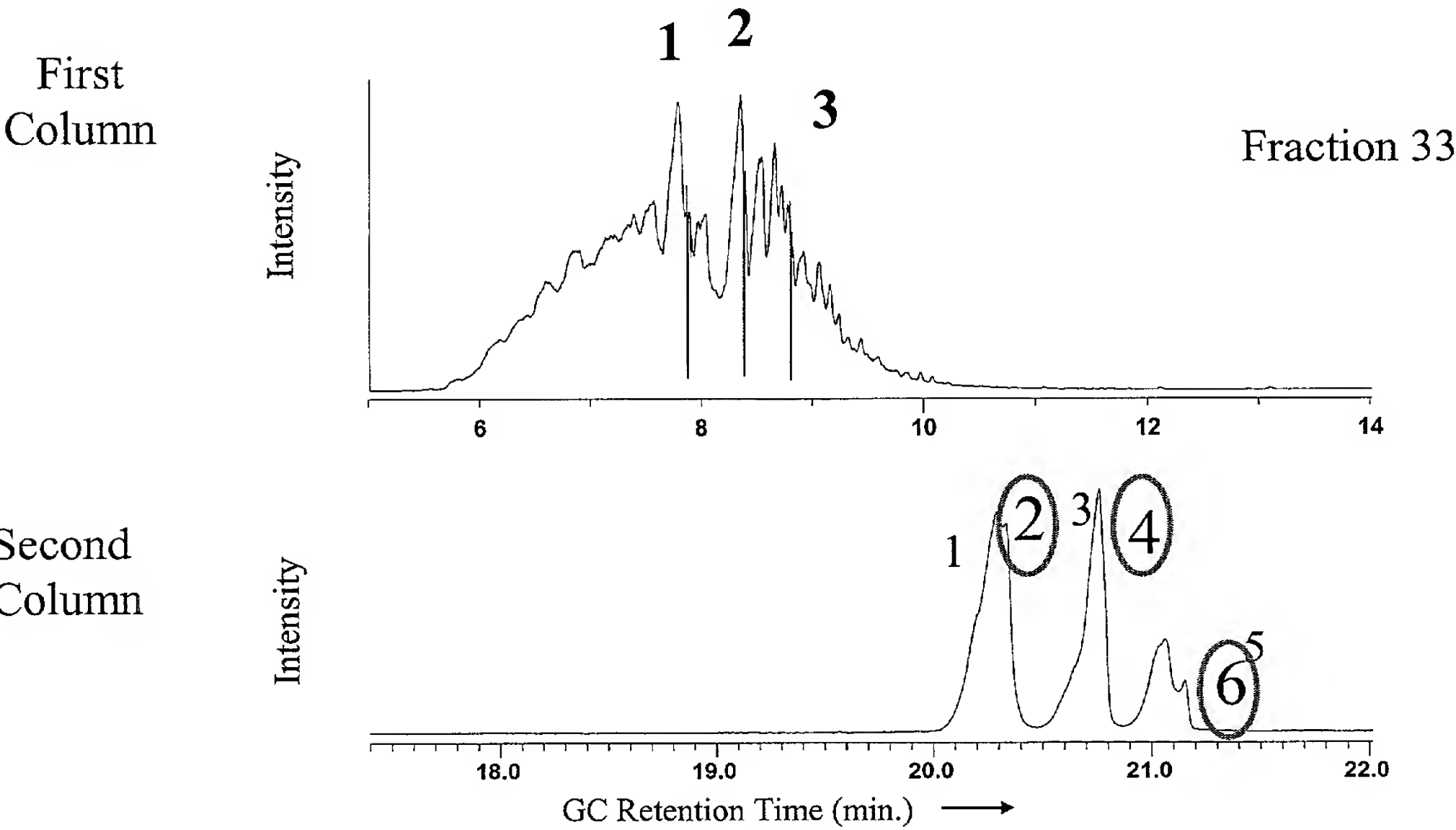
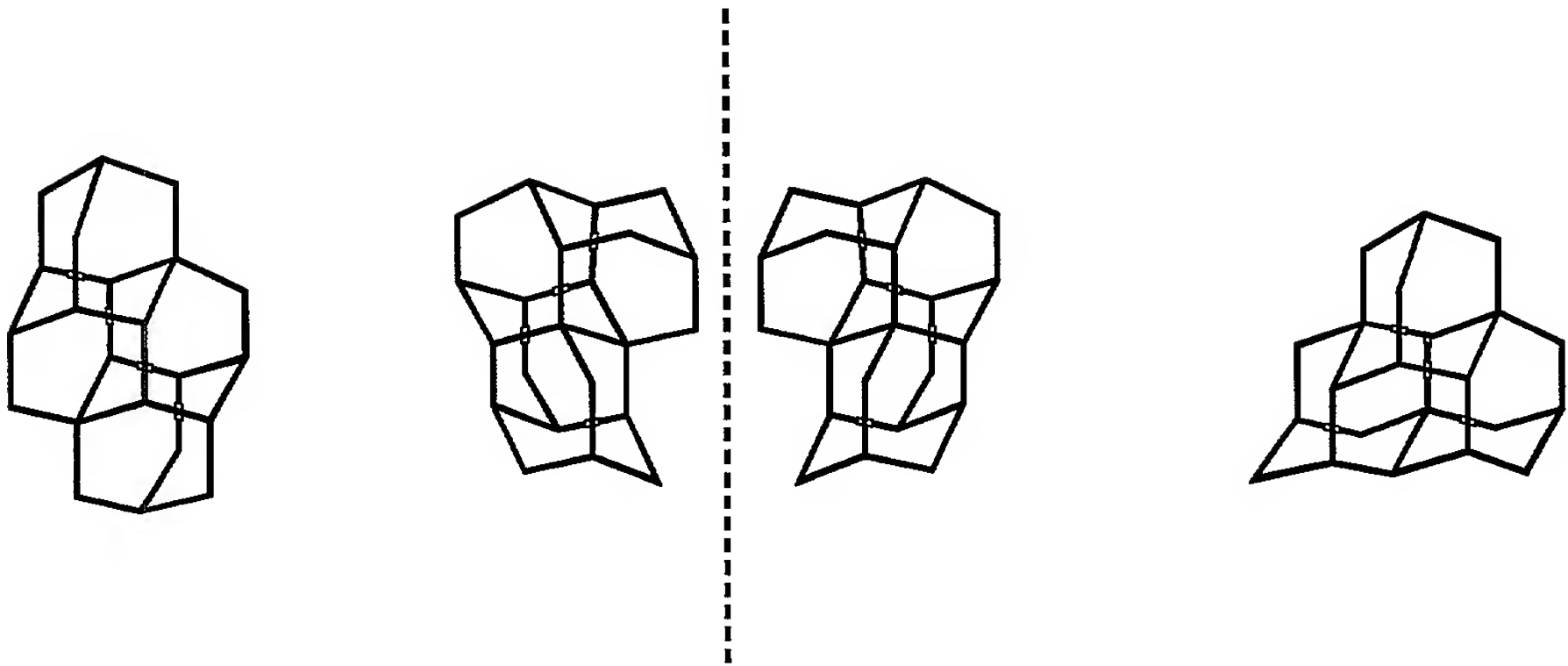


FIG. 7

mirror plane



[121] Tetramantane

[123] Tetramantane  
(ENANTIOMERS)

[1(2)3] Tetramantane



FIG. 8A

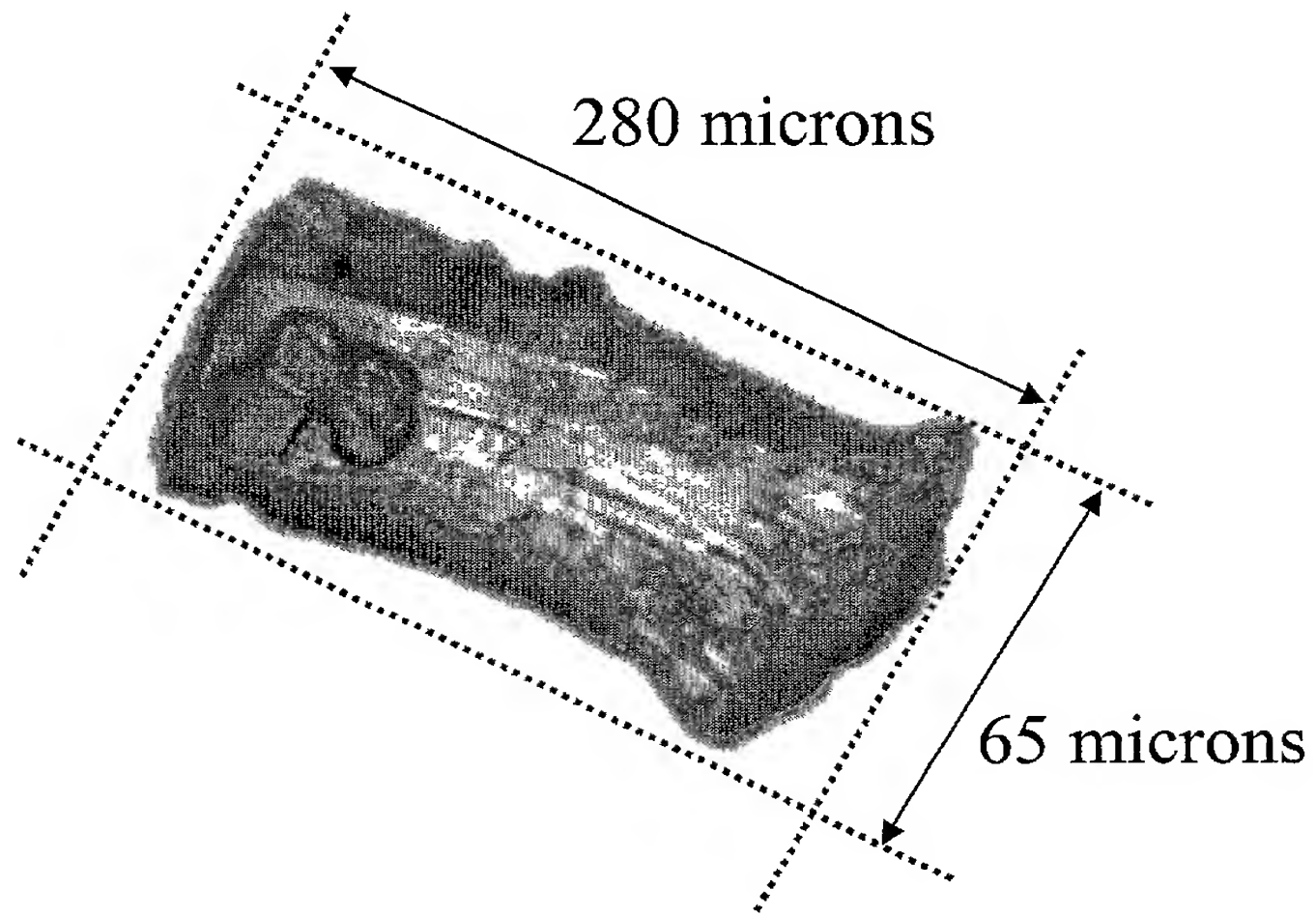


FIG. 8B

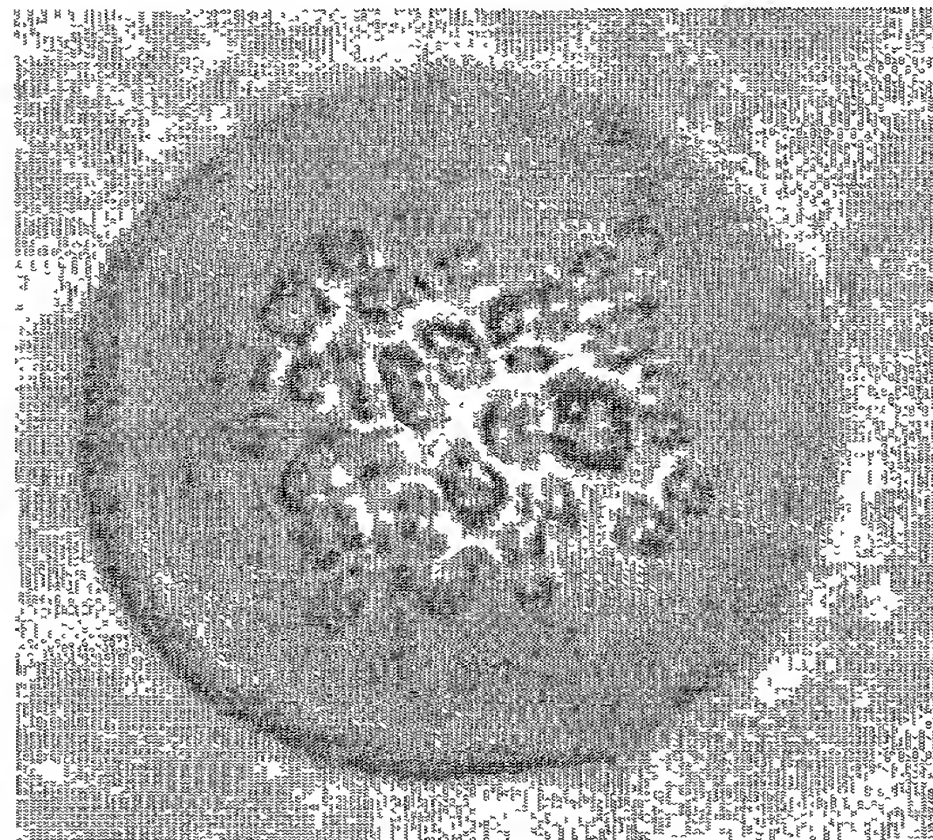


FIG. 8C

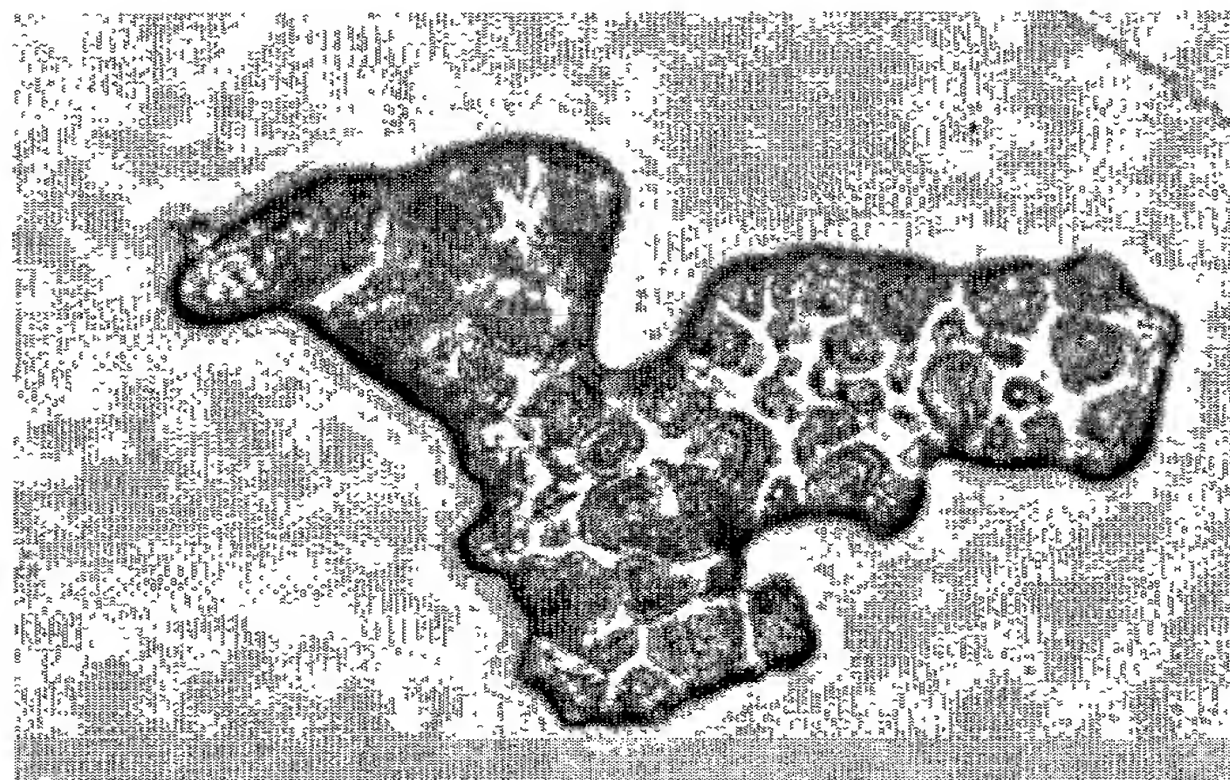


FIG. 9

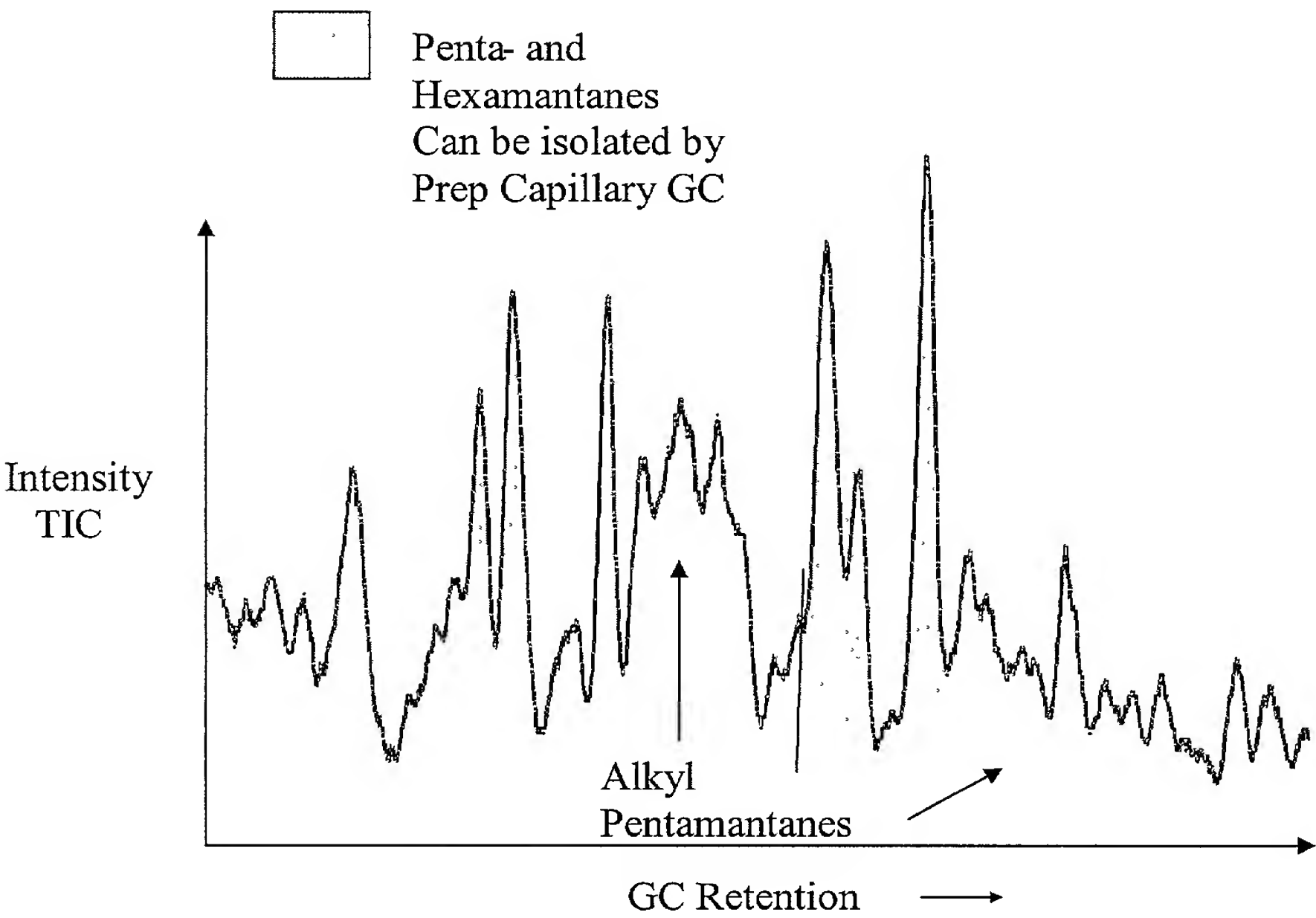


FIG. 10

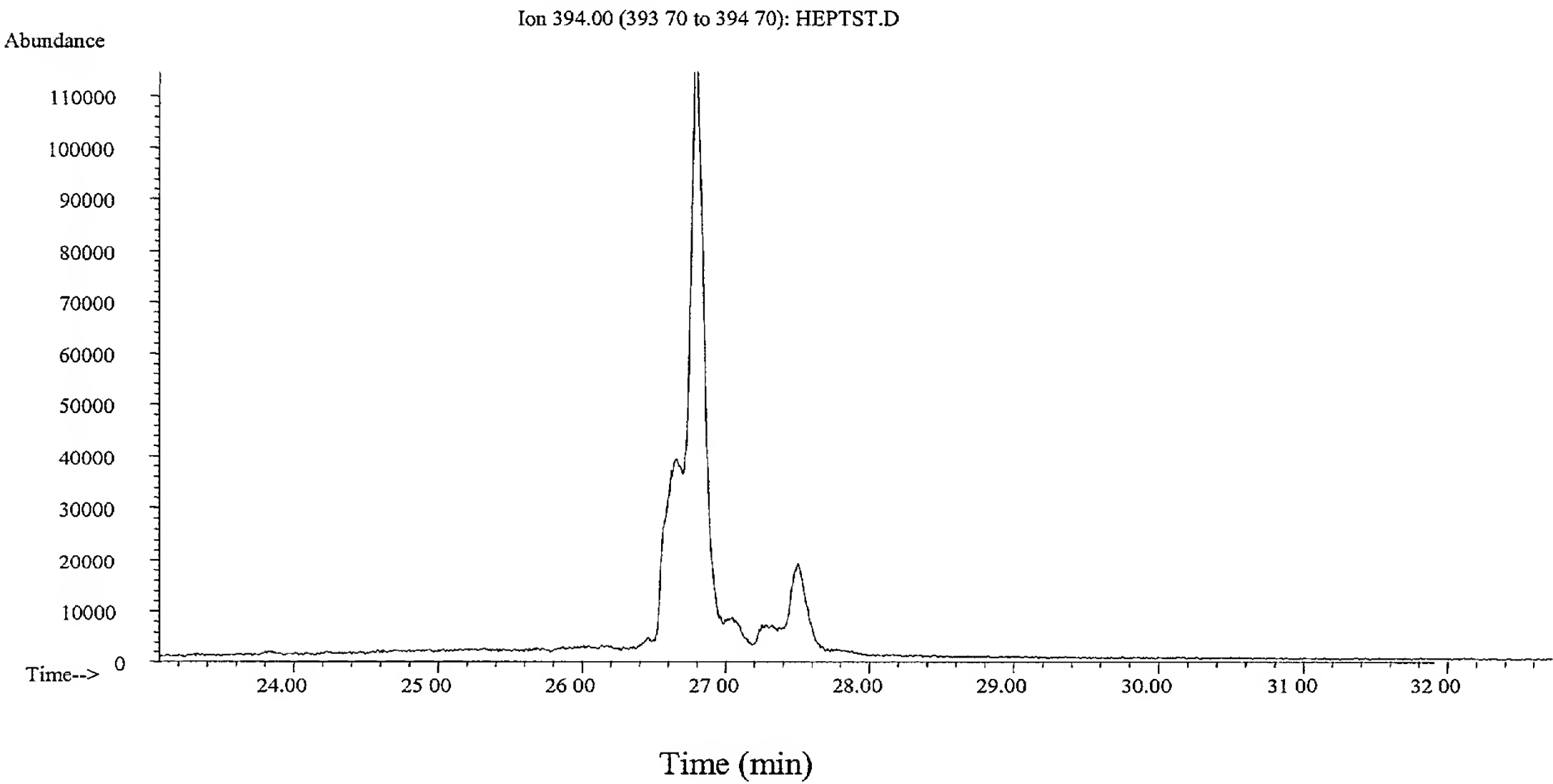


FIG. 11

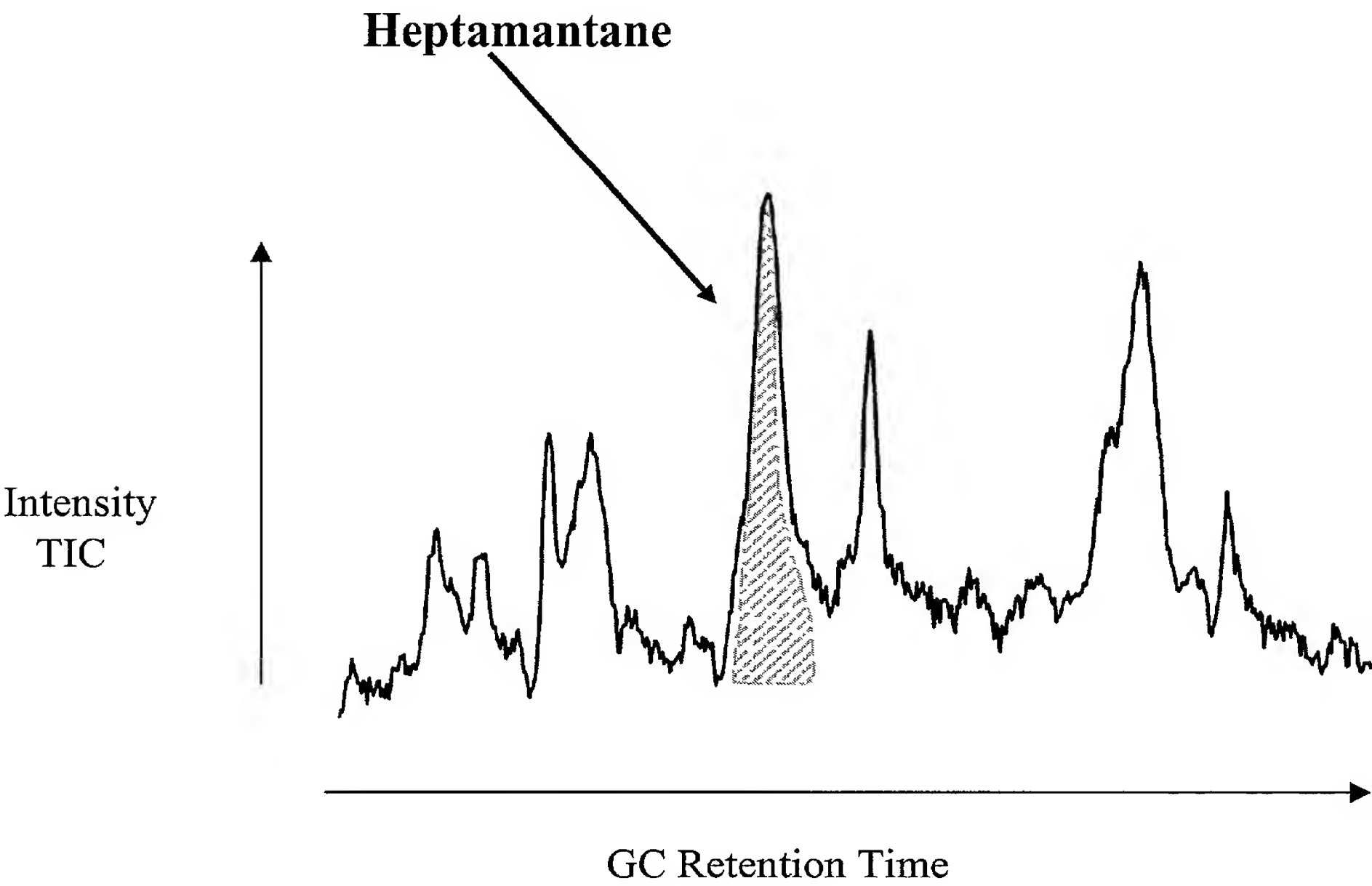


FIG. 12

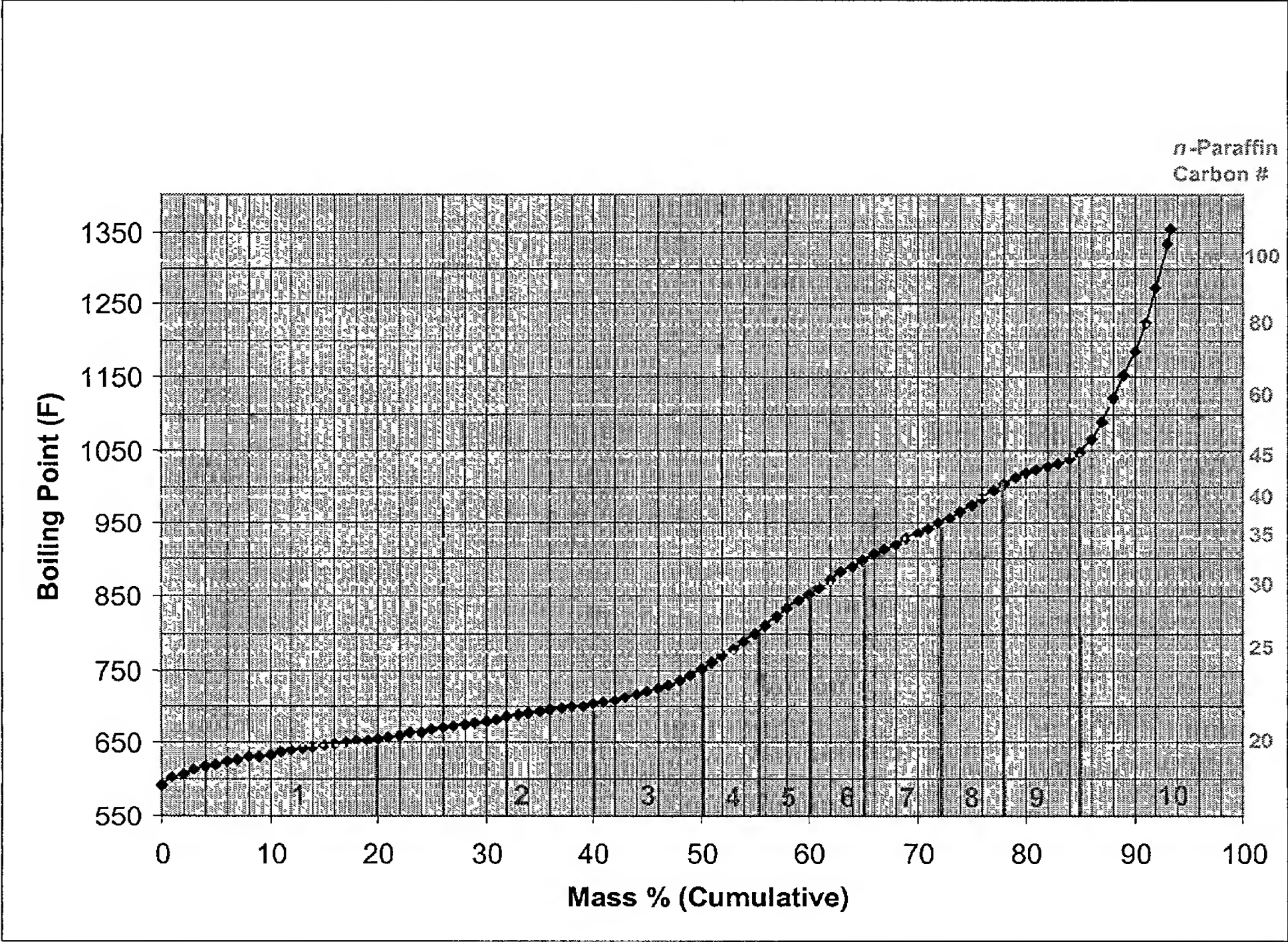




FIG. 13

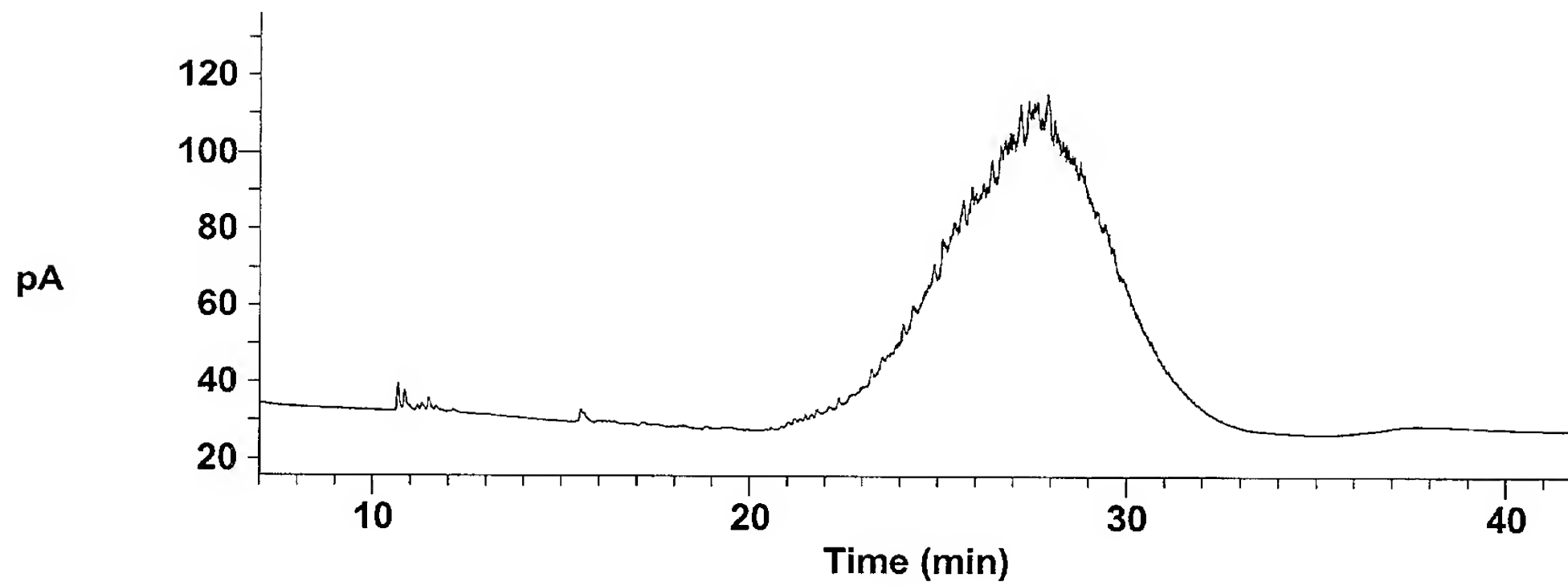


FIG. 14

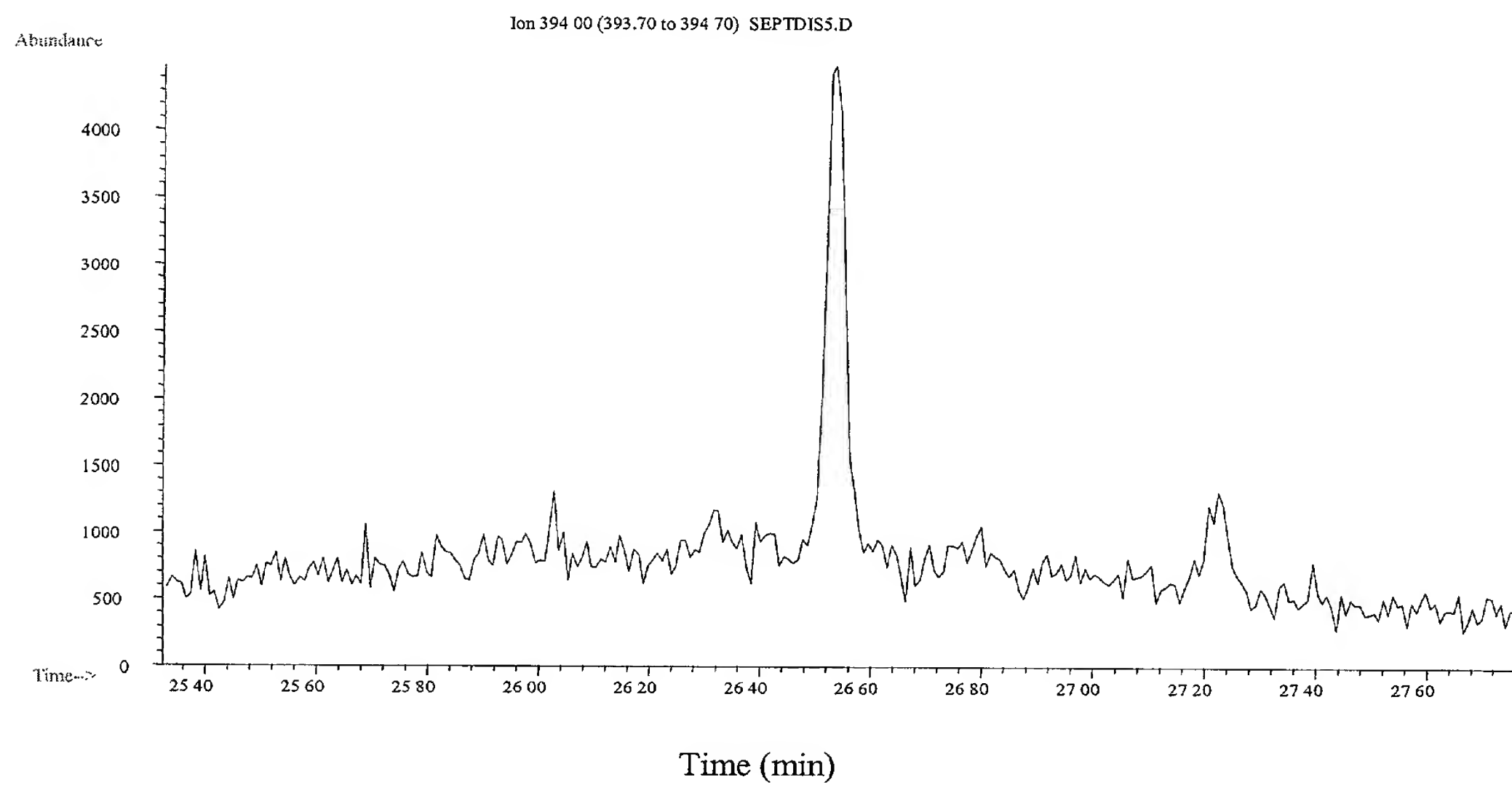




FIG. 15

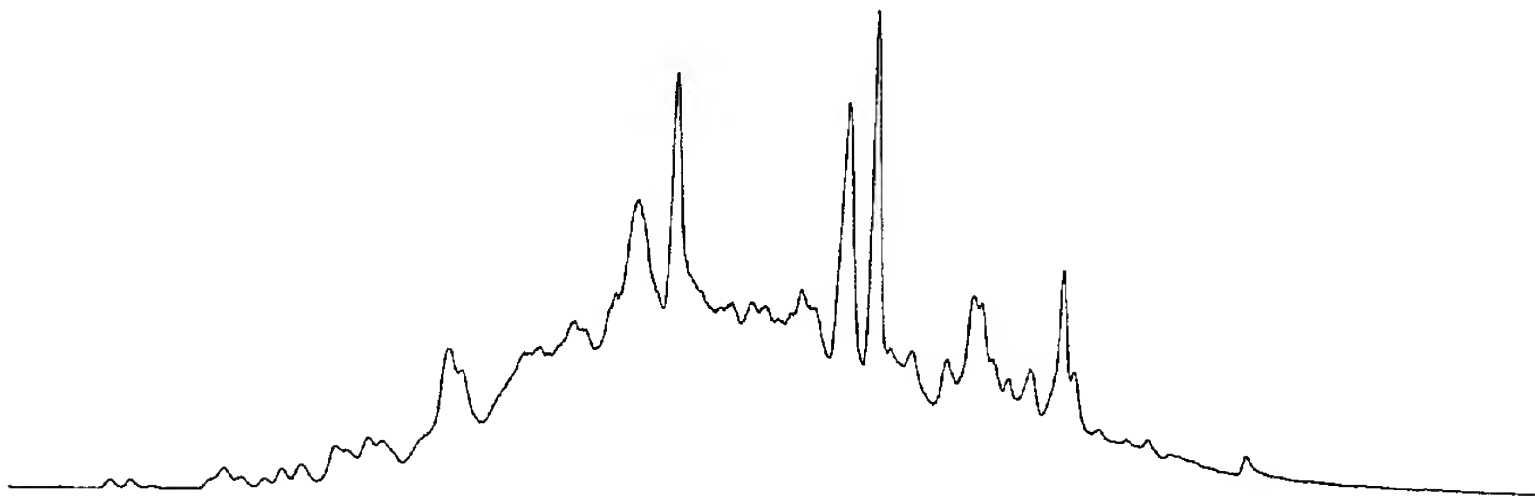


FIG. 16

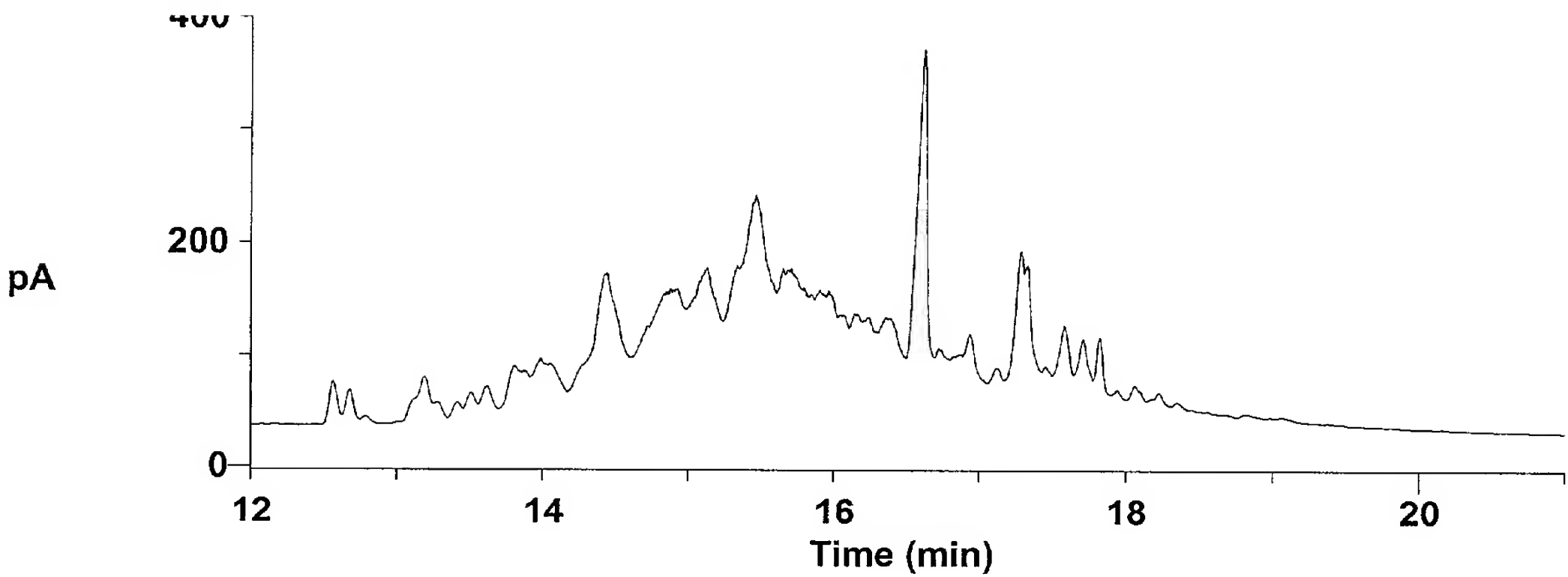


FIG. 17

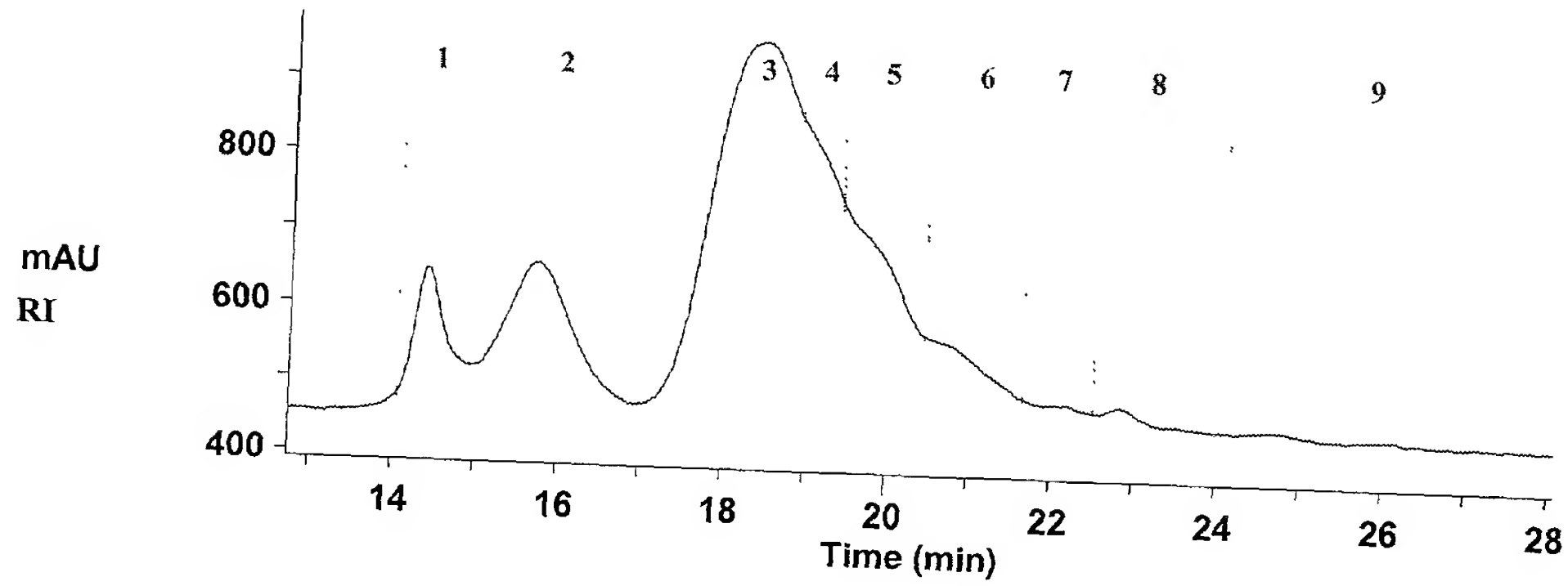


FIG. 18

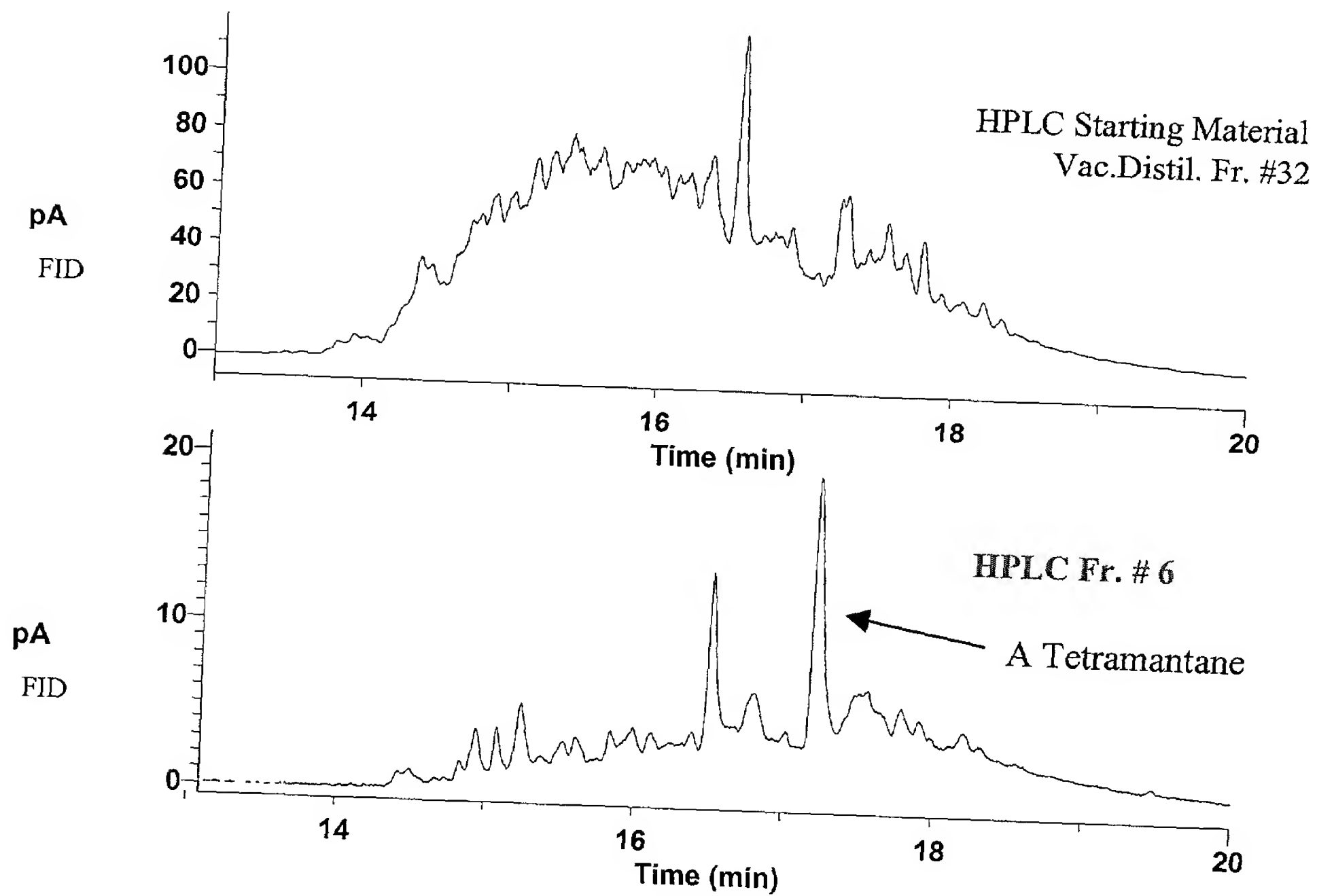
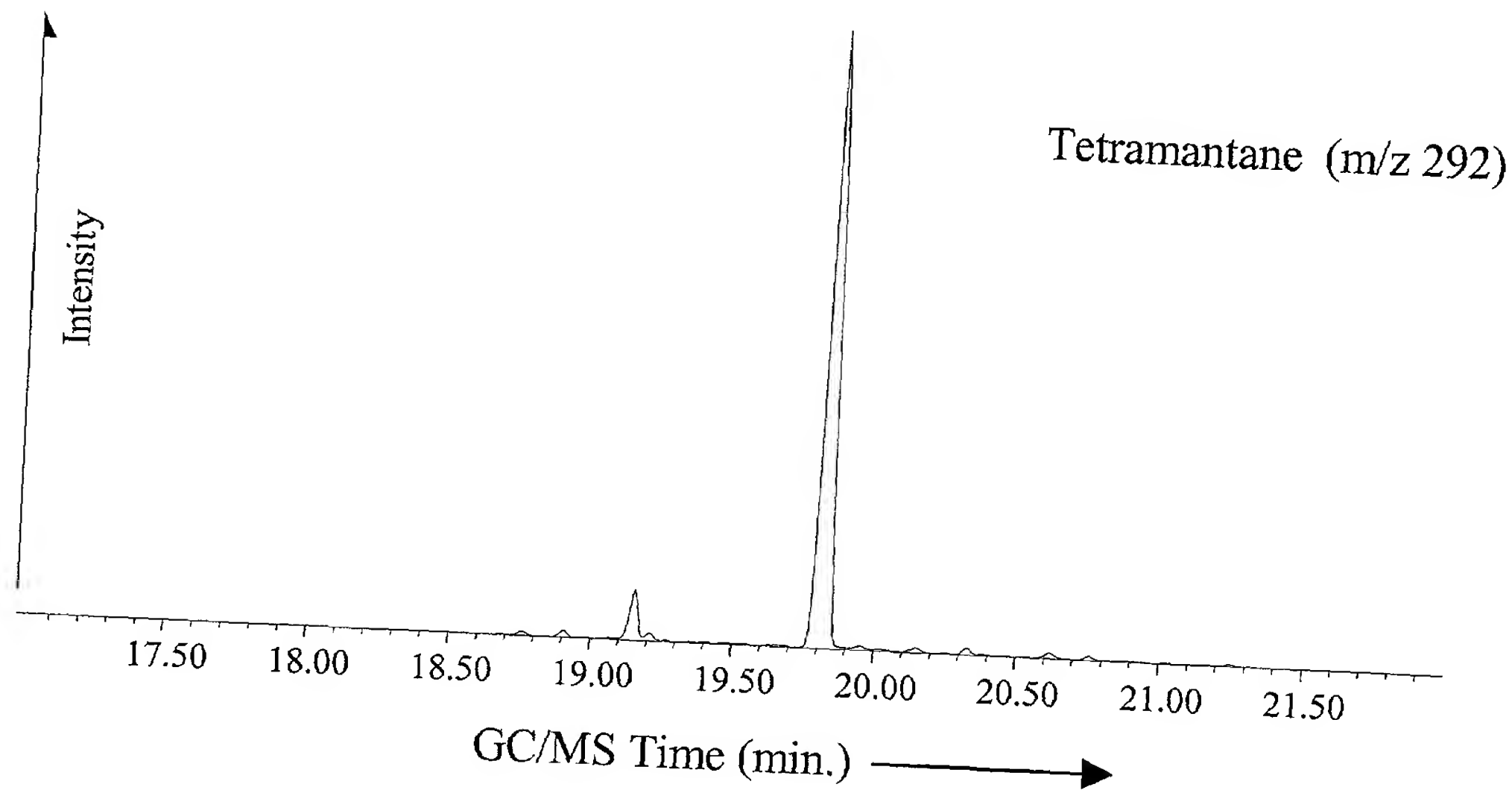
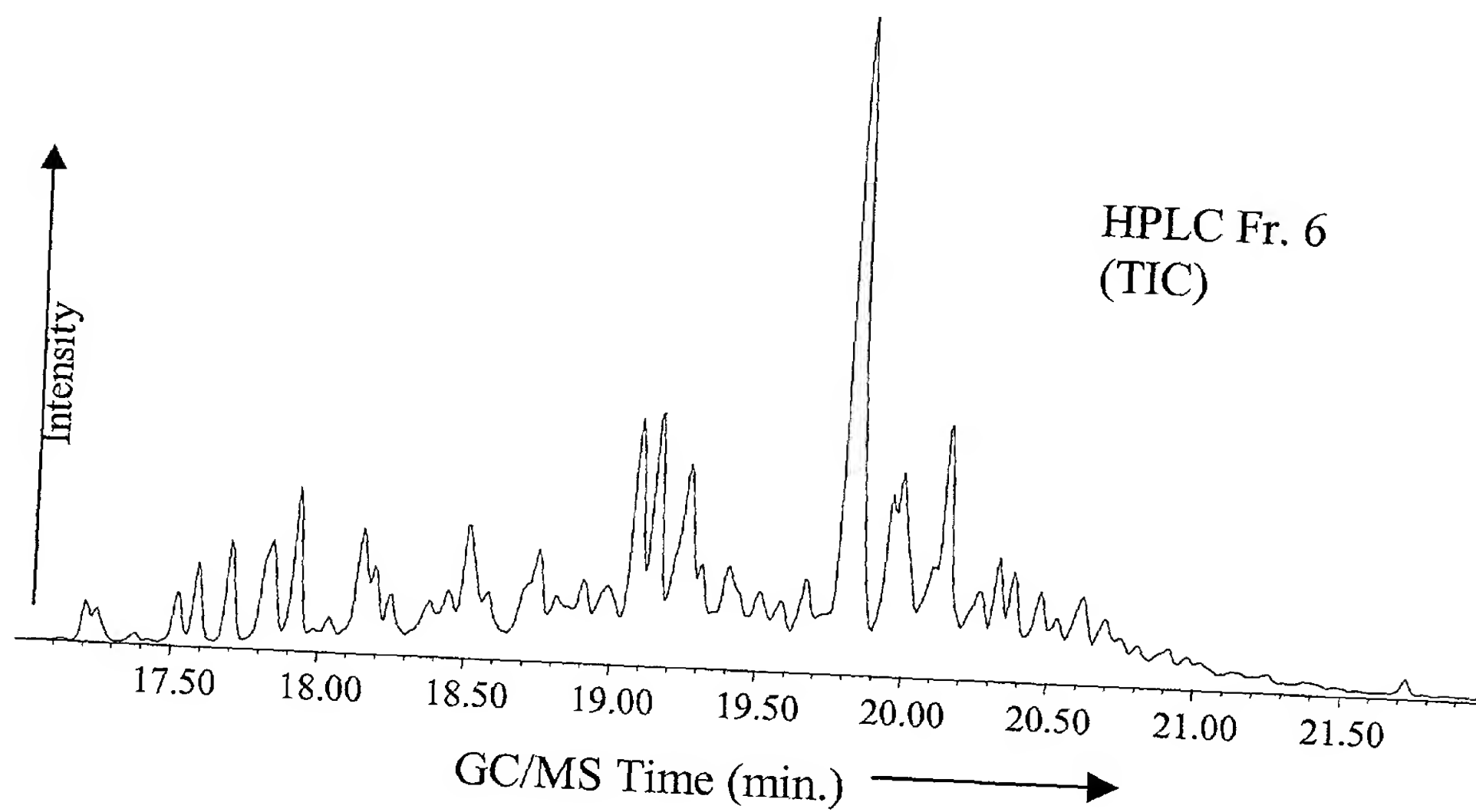
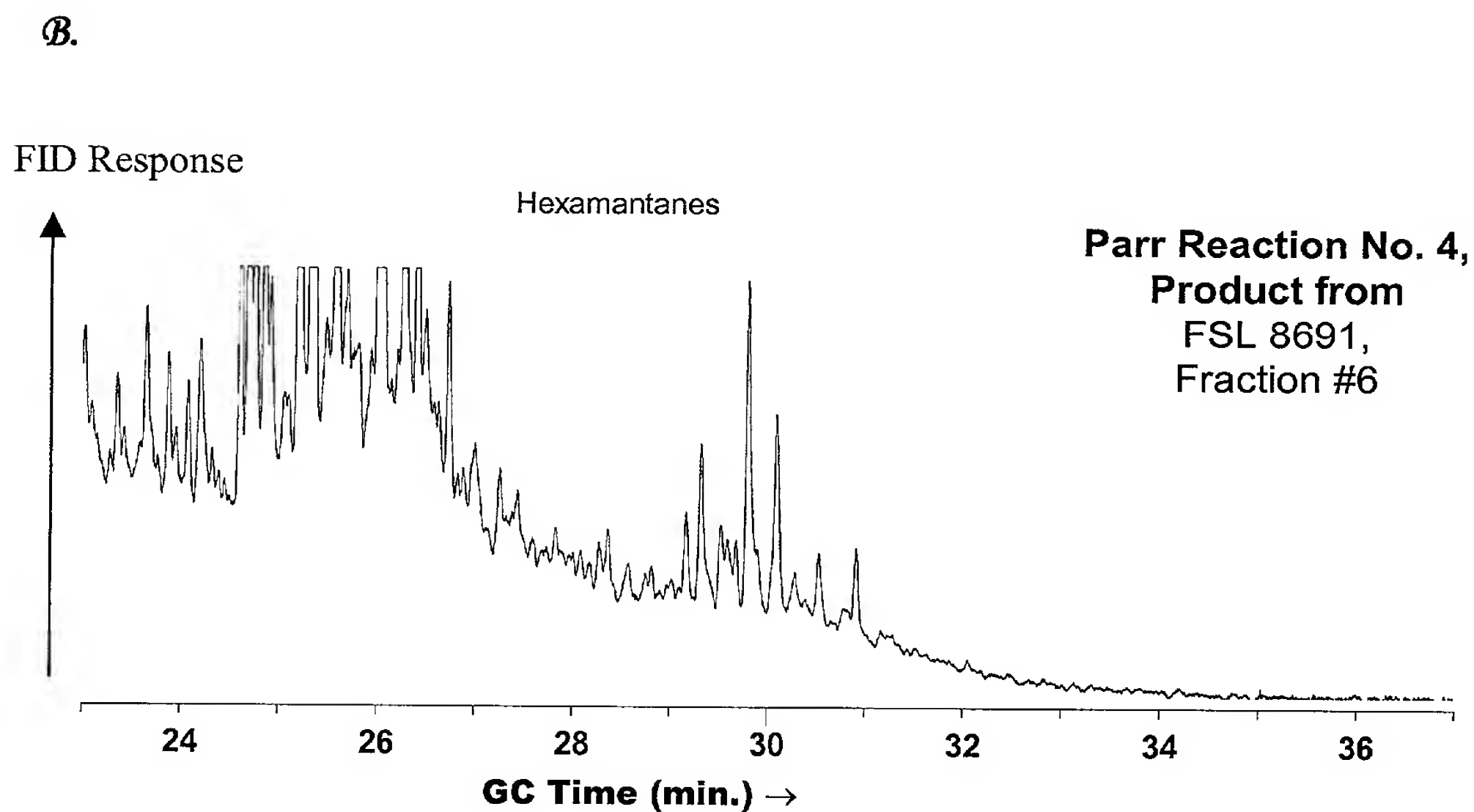
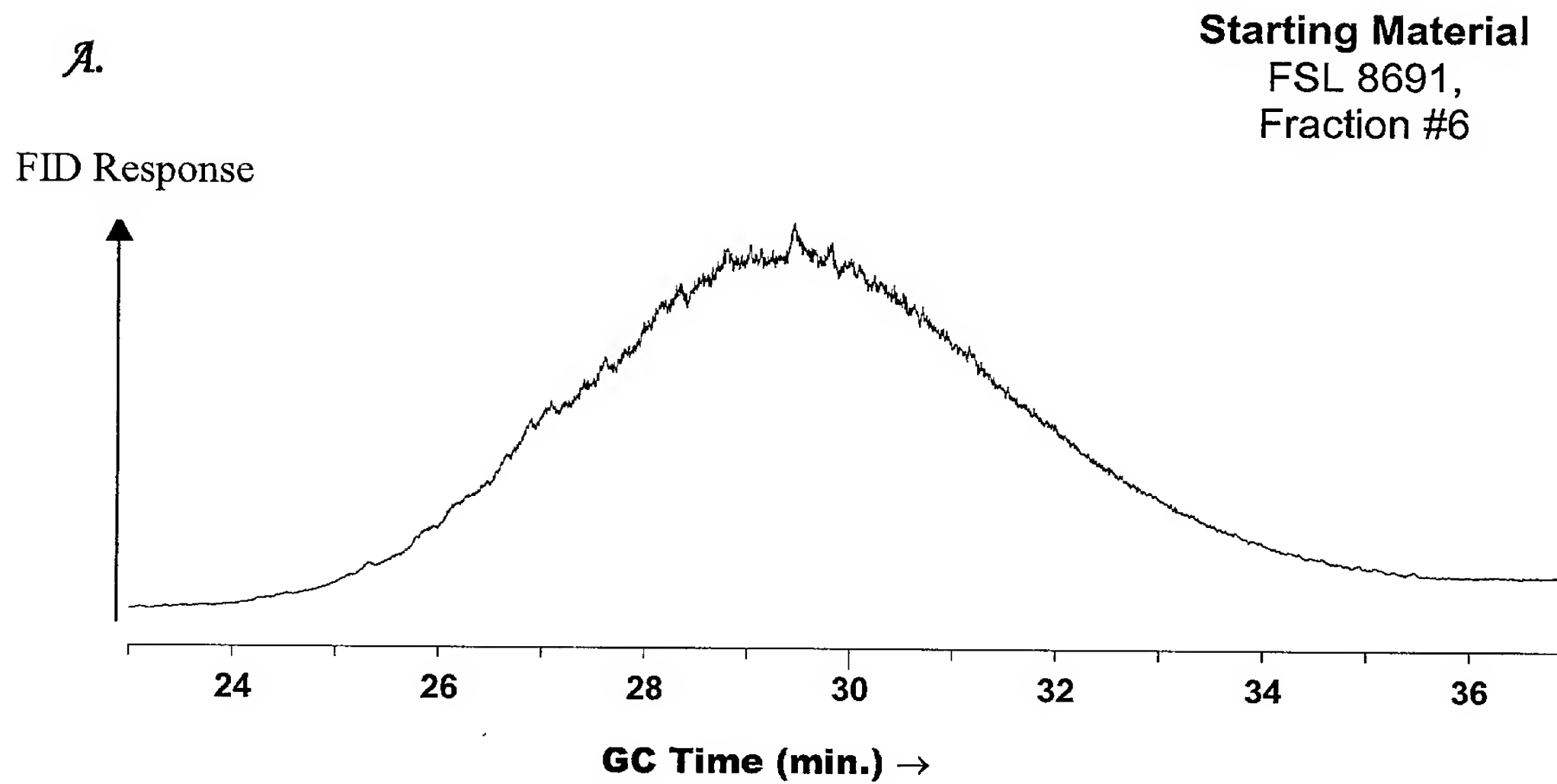


FIG. 19



**FIG. 20**





*FIG. 21*

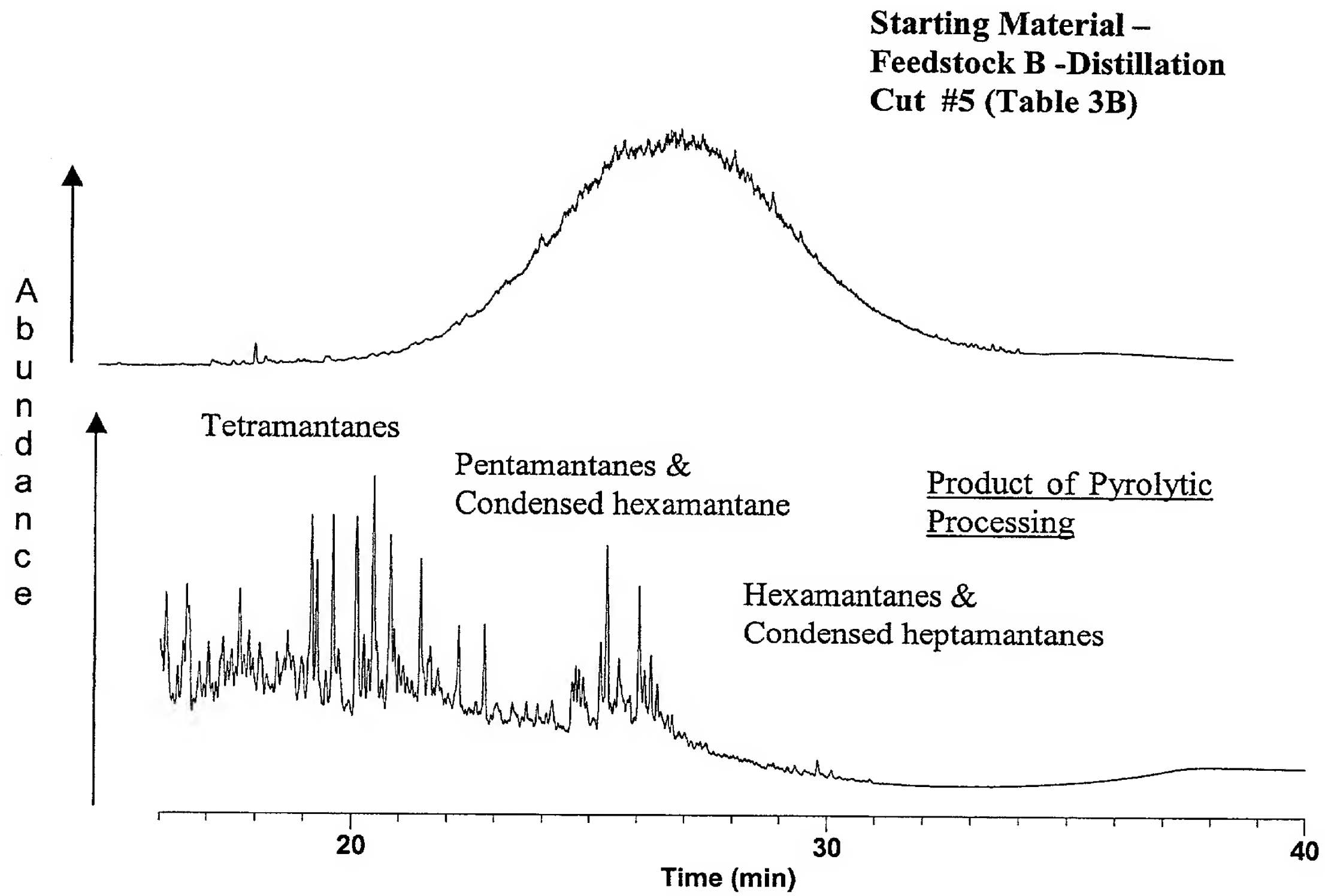


FIG. 22

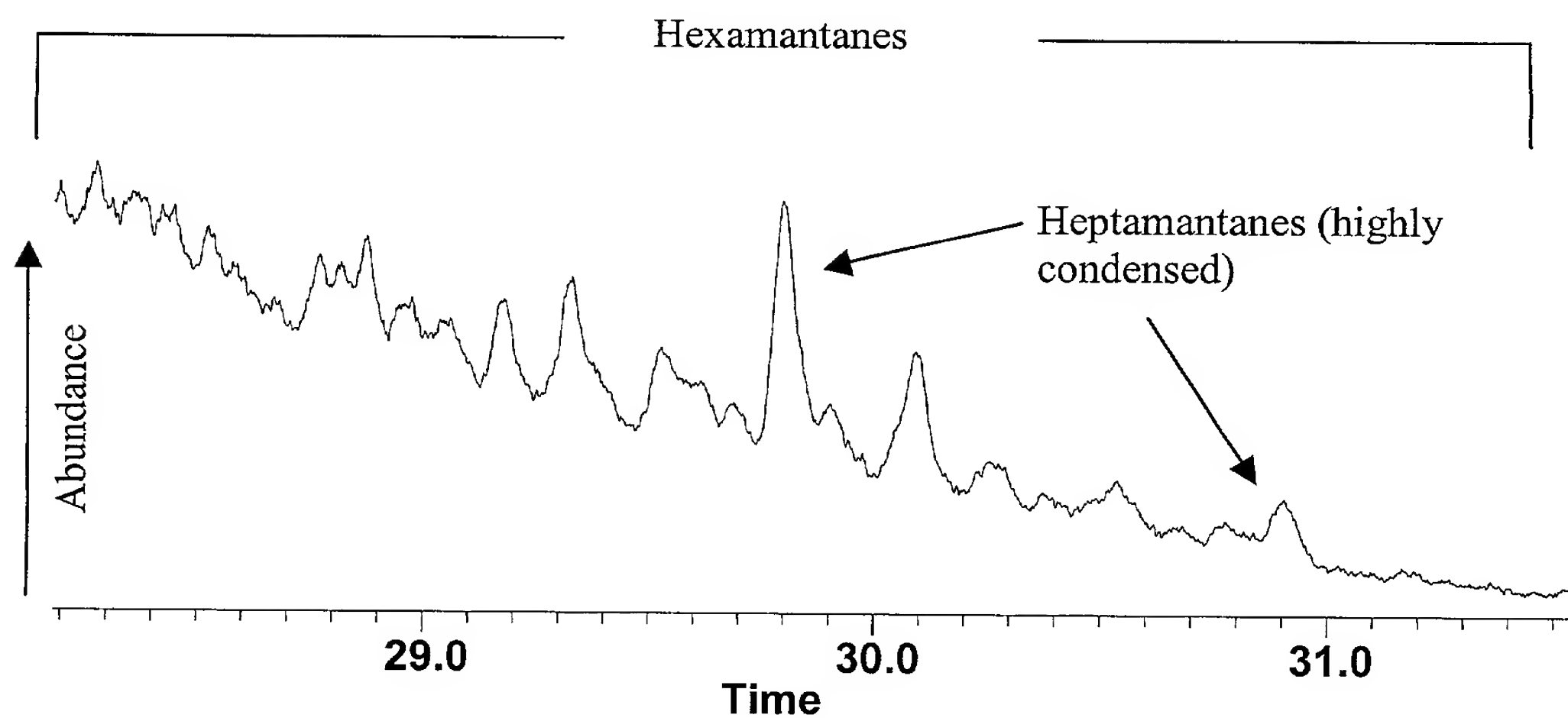


FIG. 23

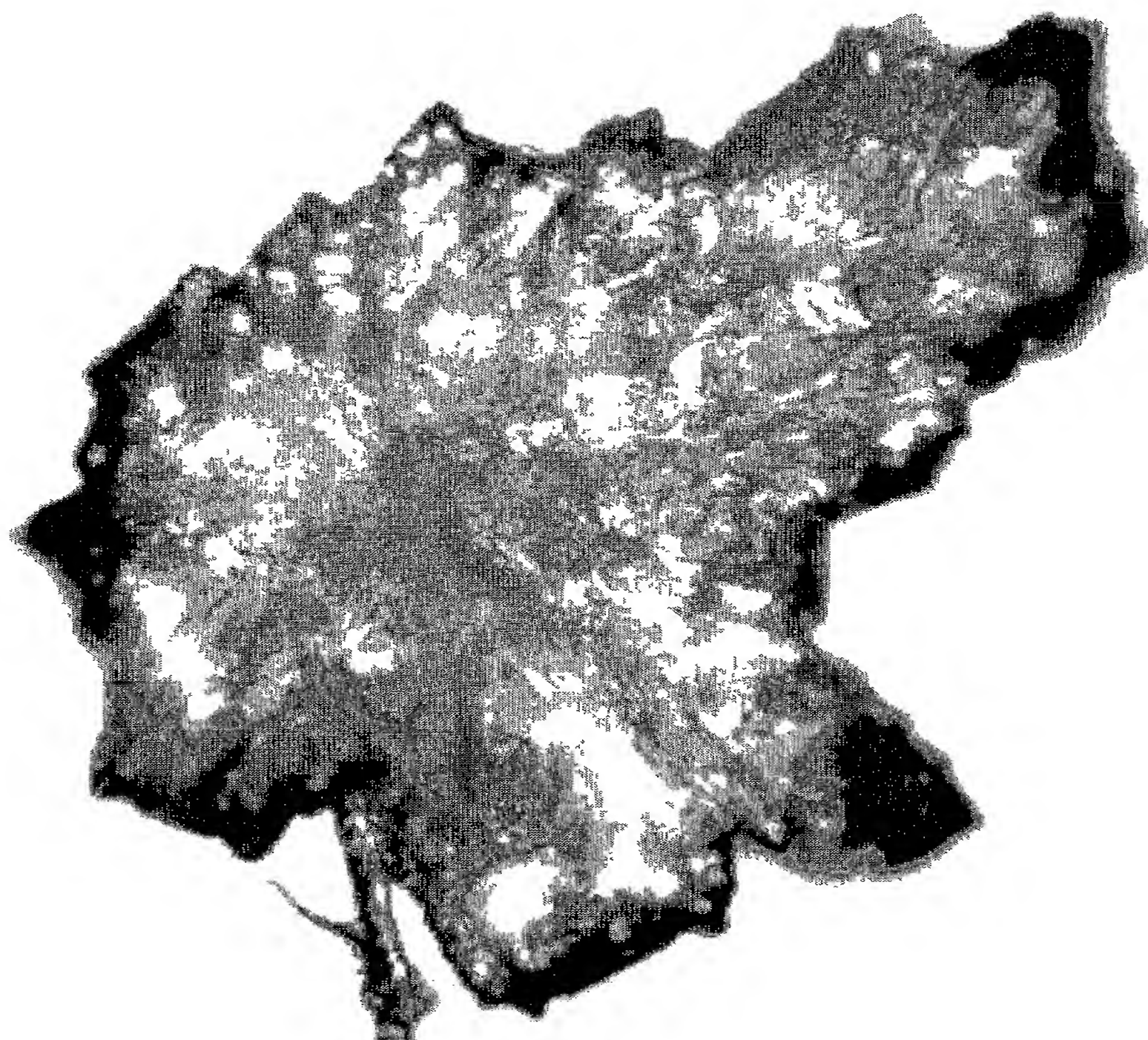
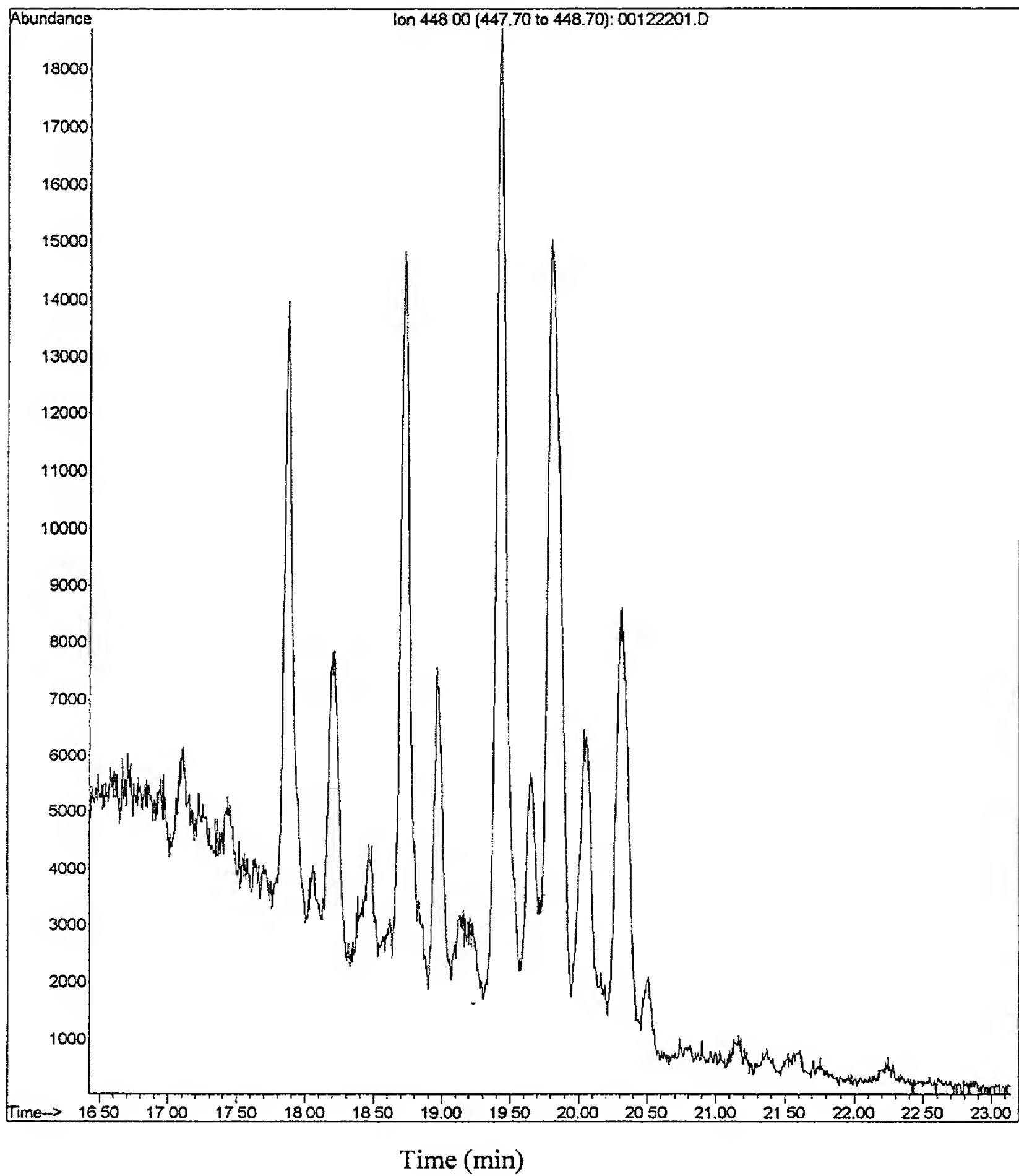


FIG. 24



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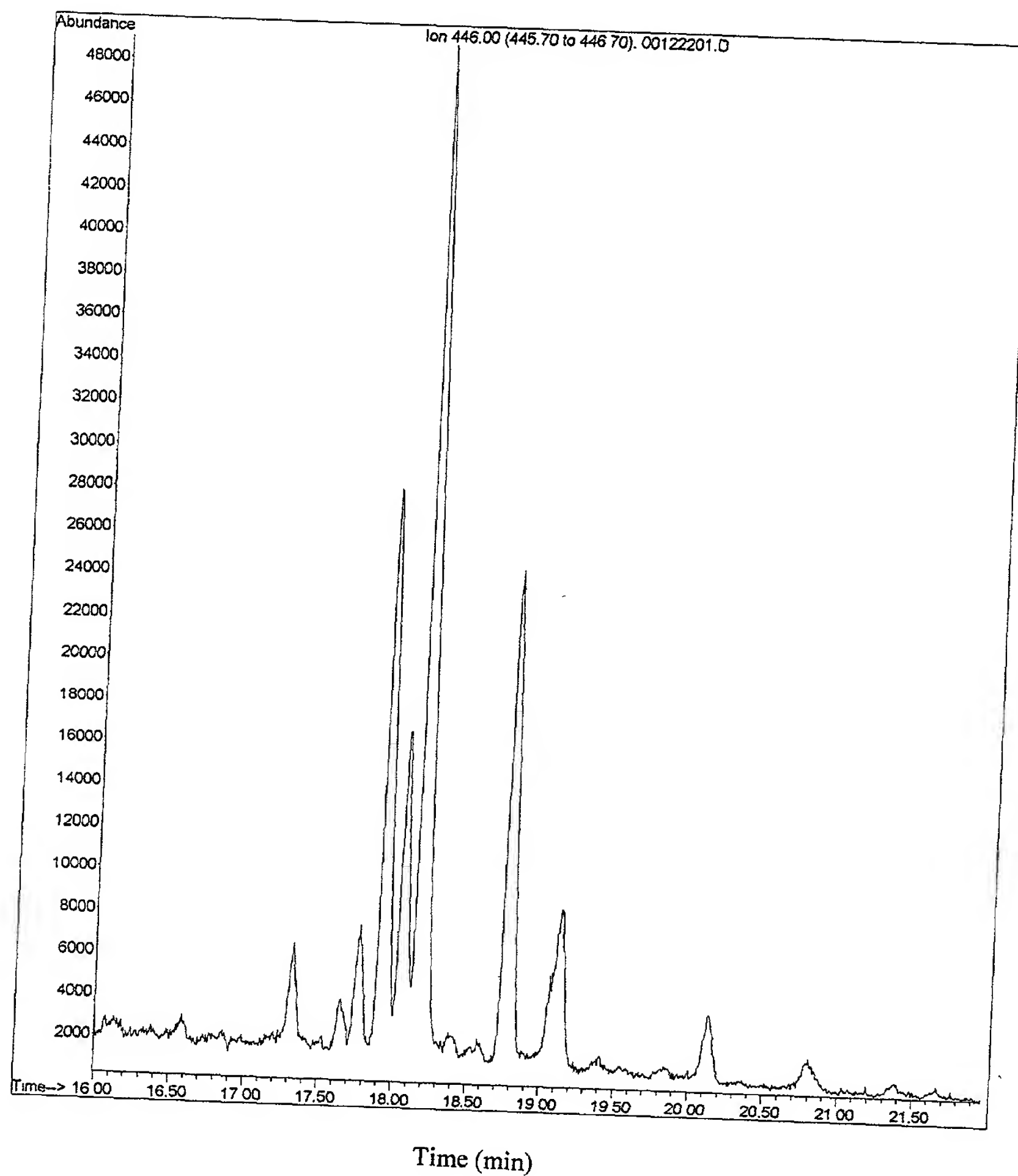
TITLE: PROCESSES FOR THE PURIFICATION OF HIGHER DIAMONDOIDS AND COMPOSITIONS  
COMPRISING SUCH DIAMONDOIDS

INVENTOR(S): JEREMY E. DAHL AND ROBERT M. CARLSON

APPLICATION SERIAL NO: HERewith

SHEET 16 of 24

FIG. 25





APPLN. FILING DATE: DECEMBER 12, 2001

TITLE: PROCESSES FOR THE PURIFICATION OF HIGHER DIAMONDOIDS AND COMPOSITIONS  
COMPRISING SUCH DIAMONDOIDS

INVENTOR(S): JEREMY E. DAHL AND ROBERT M. CARLSON

APPLICATION SERIAL NO: HERewith

SHEET 17 of 24

FIG. 26

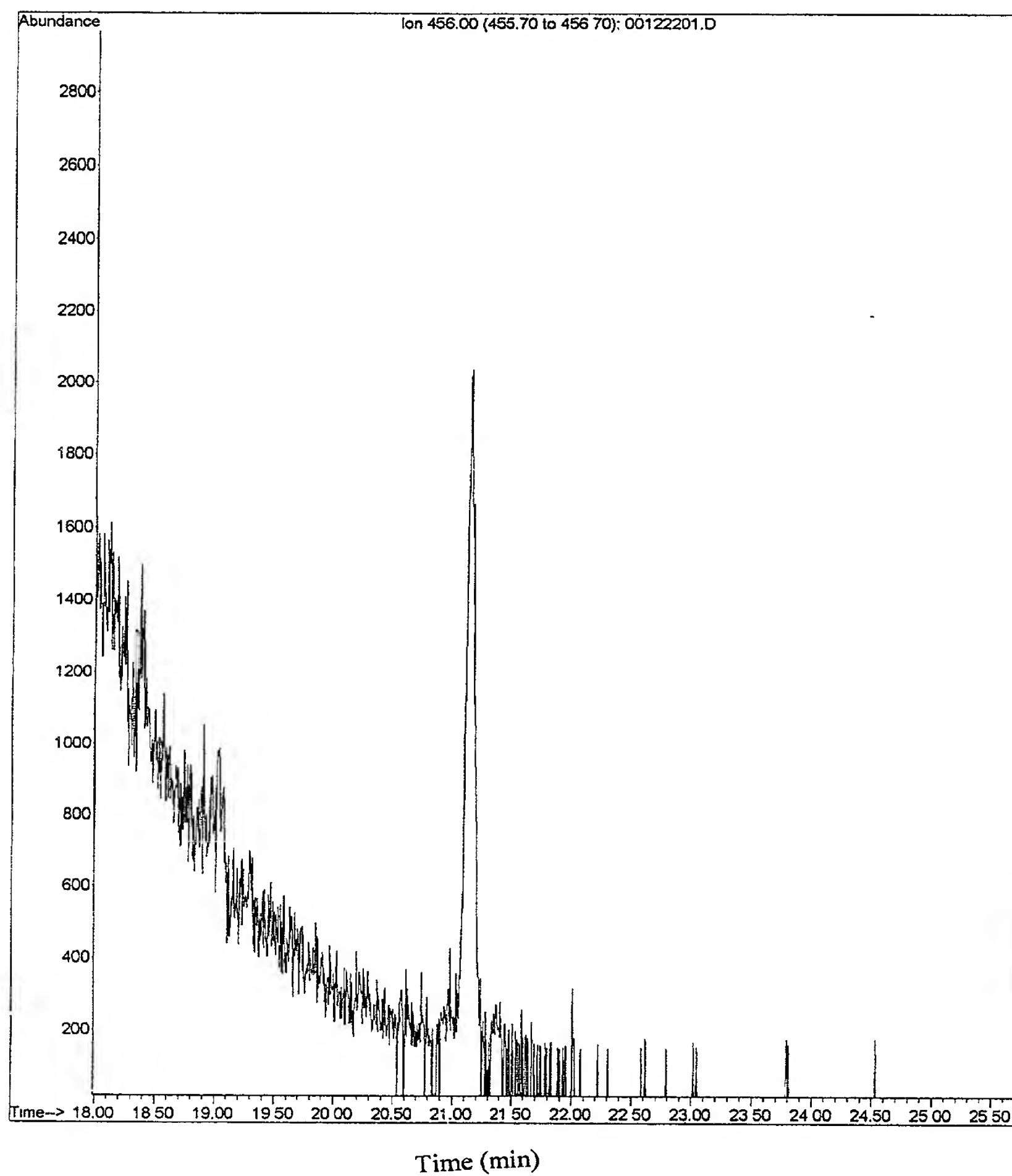
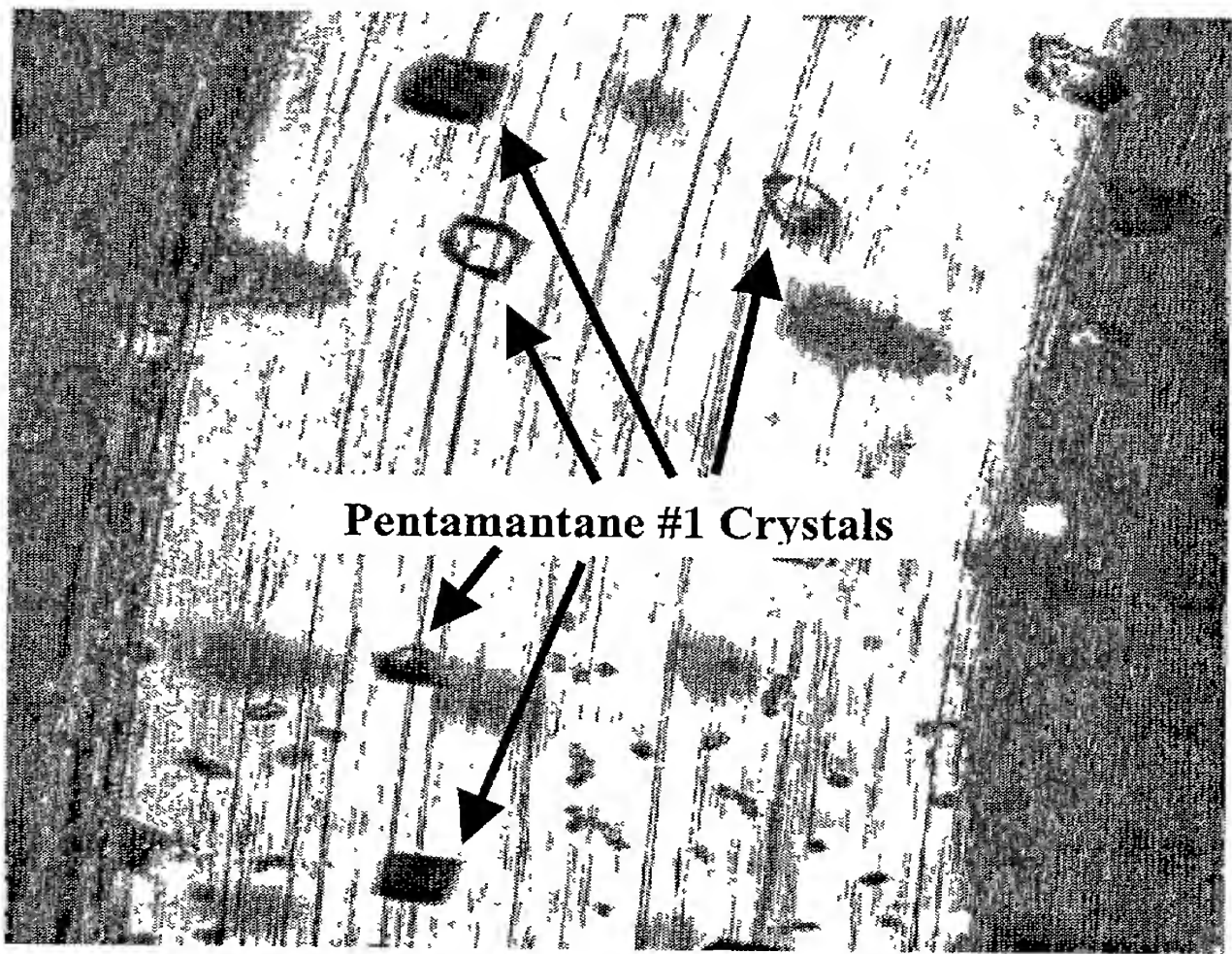
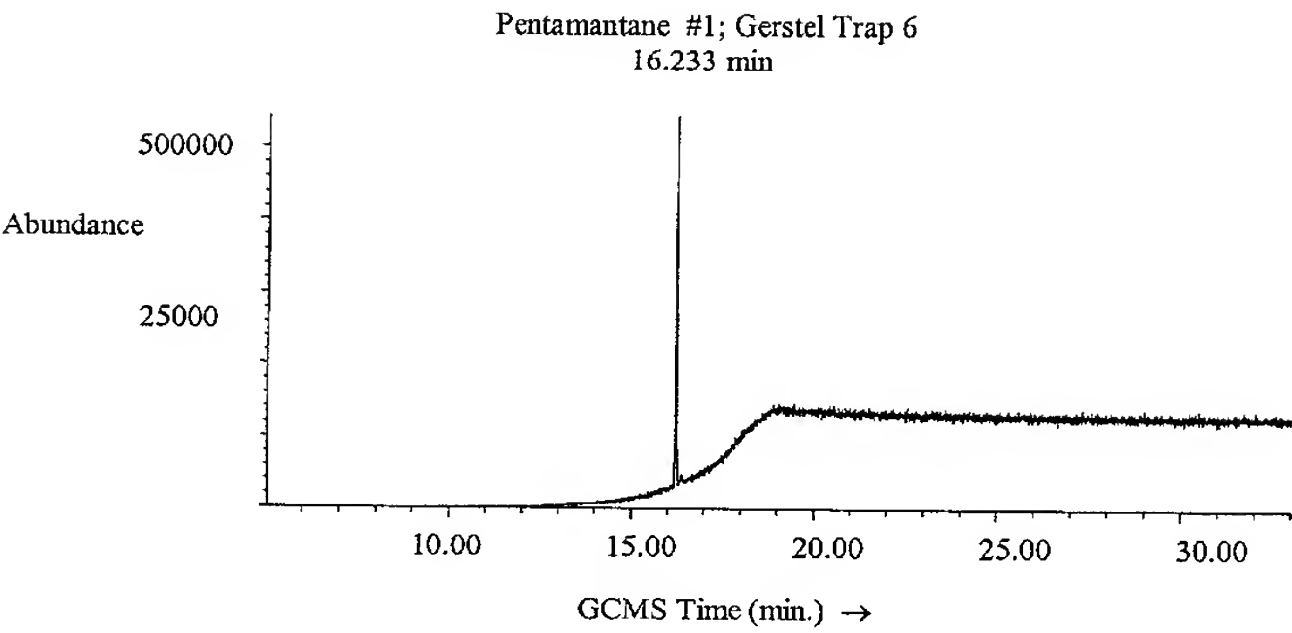


FIG. 27

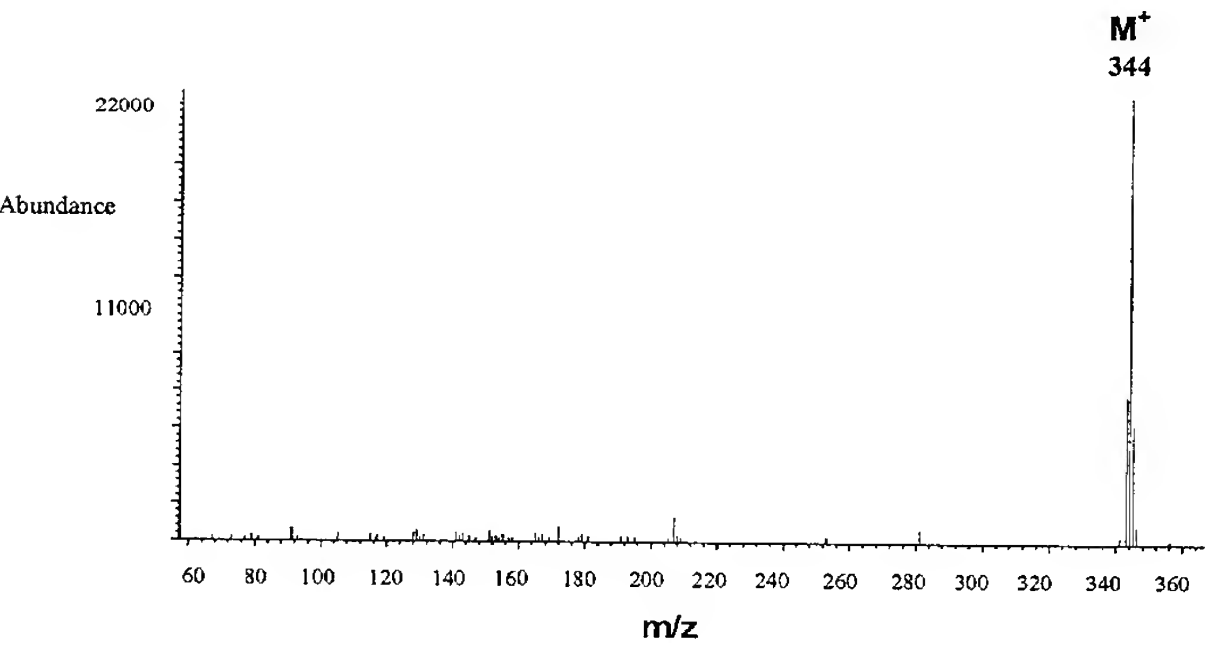
A.



B.



C.



APPLN. FILING DATE: DECEMBER 12, 2001

TITLE: PROCESSES FOR THE PURIFICATION OF HIGHER DIAMONDODS AND COMPOSITIONS  
COMPRISING SUCH DIAMONDODS

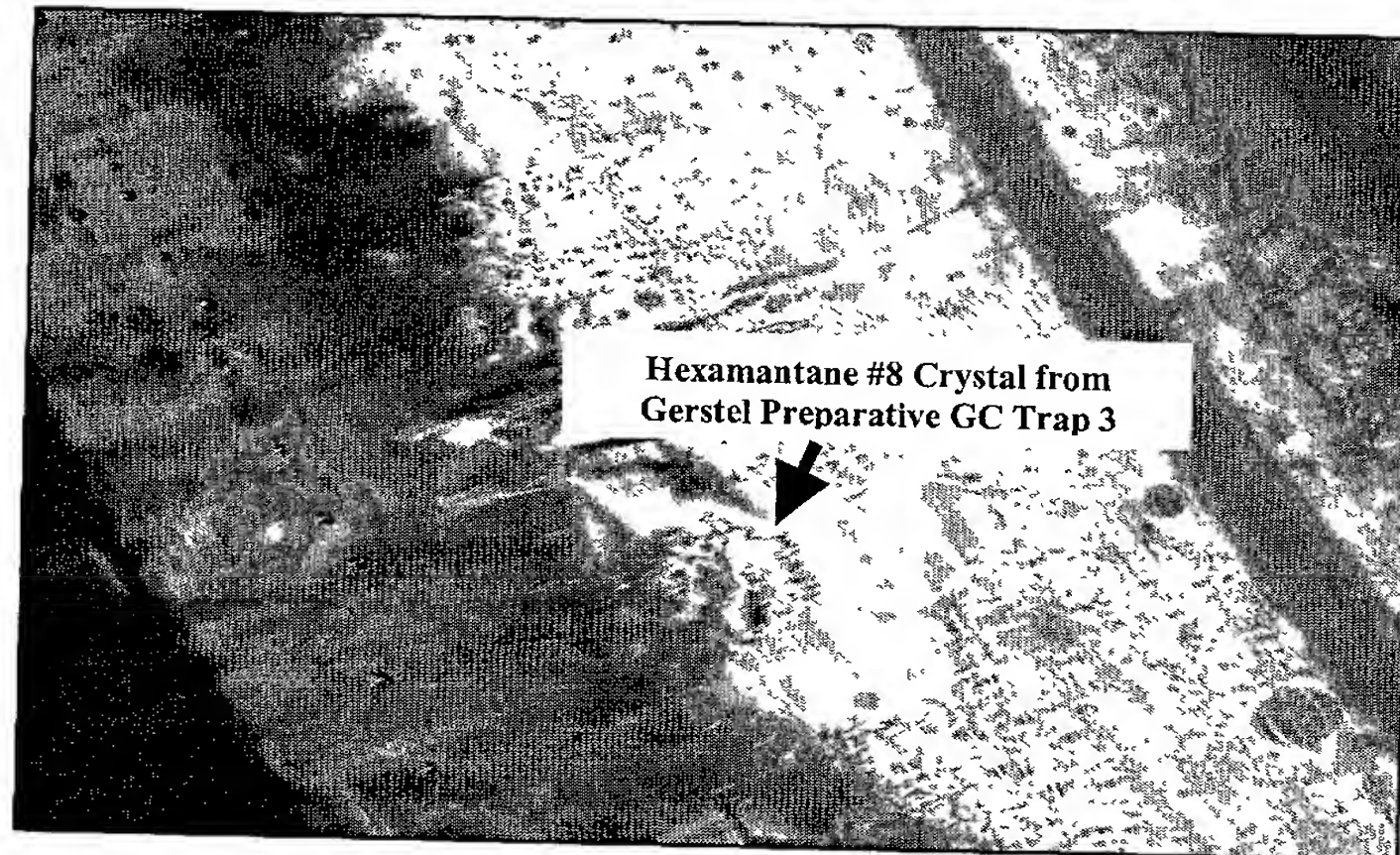
INVENTOR(S): JEREMY E. DAHL AND ROBERT M. CARLSON

APPLICATION SERIAL NO: HEREWITH

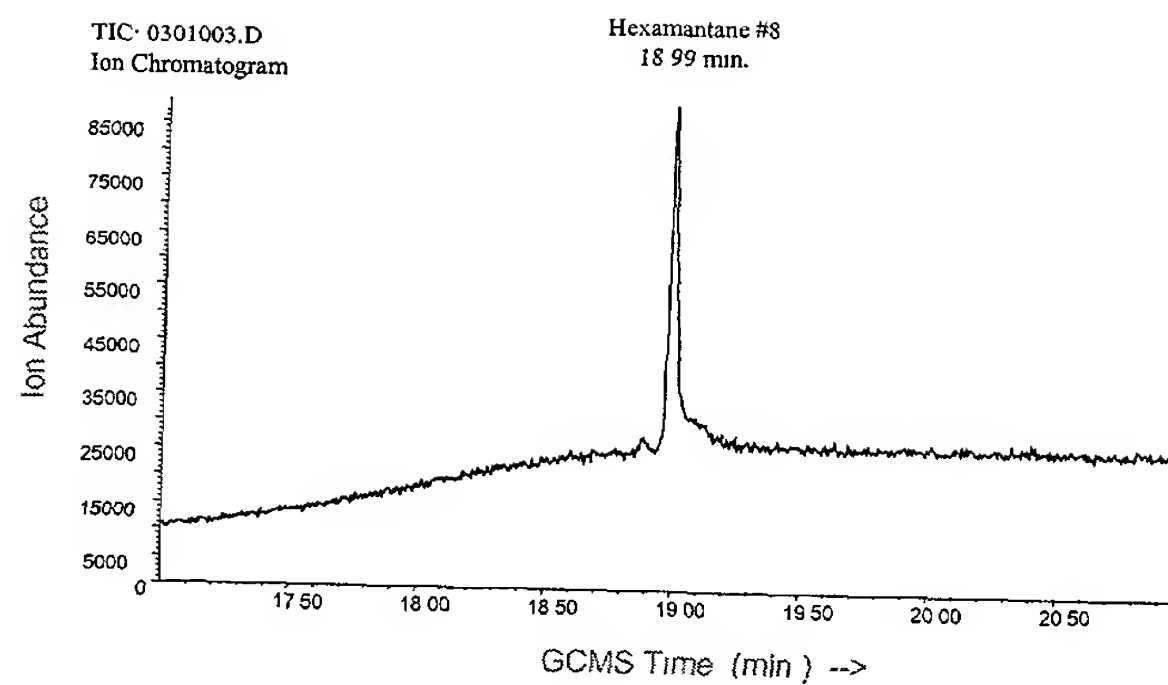
SHEET 19 of 24

FIG. 28

A.



B.



C.

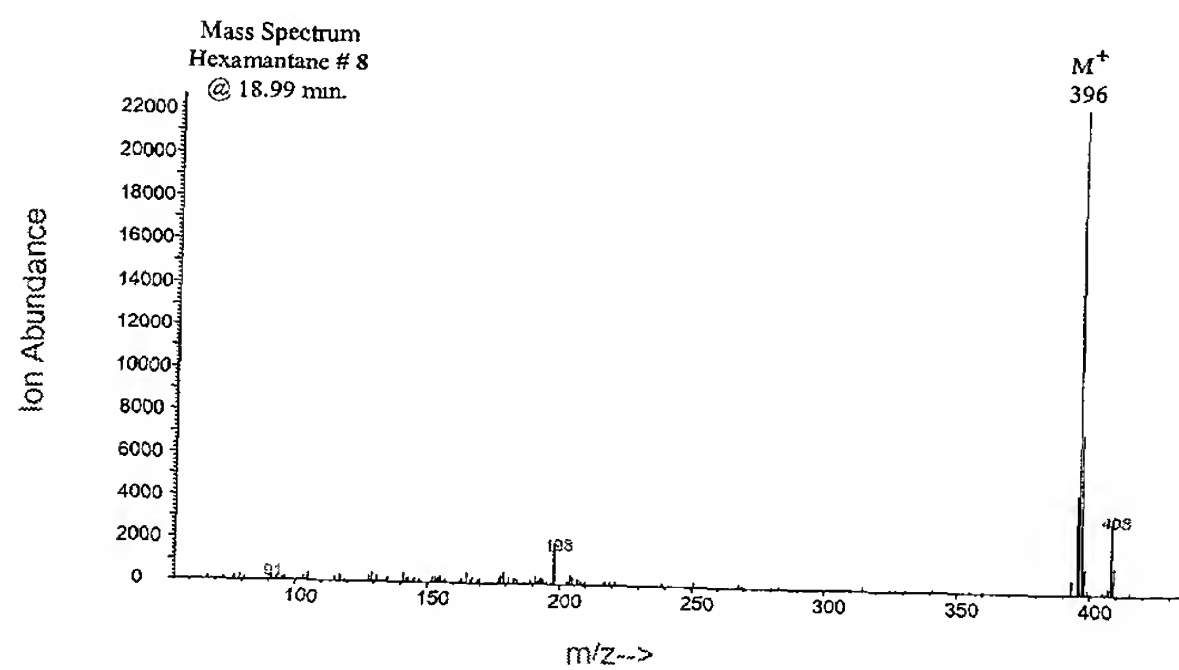


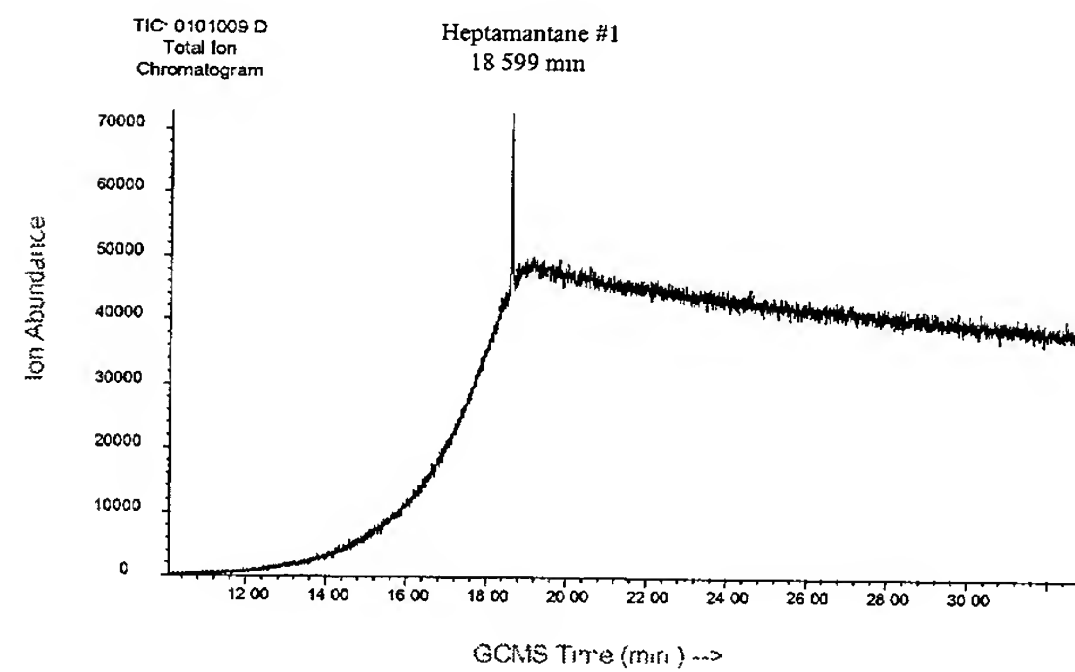
FIG. 29

A.



Heptamantane #1 Crystals

B.



C.

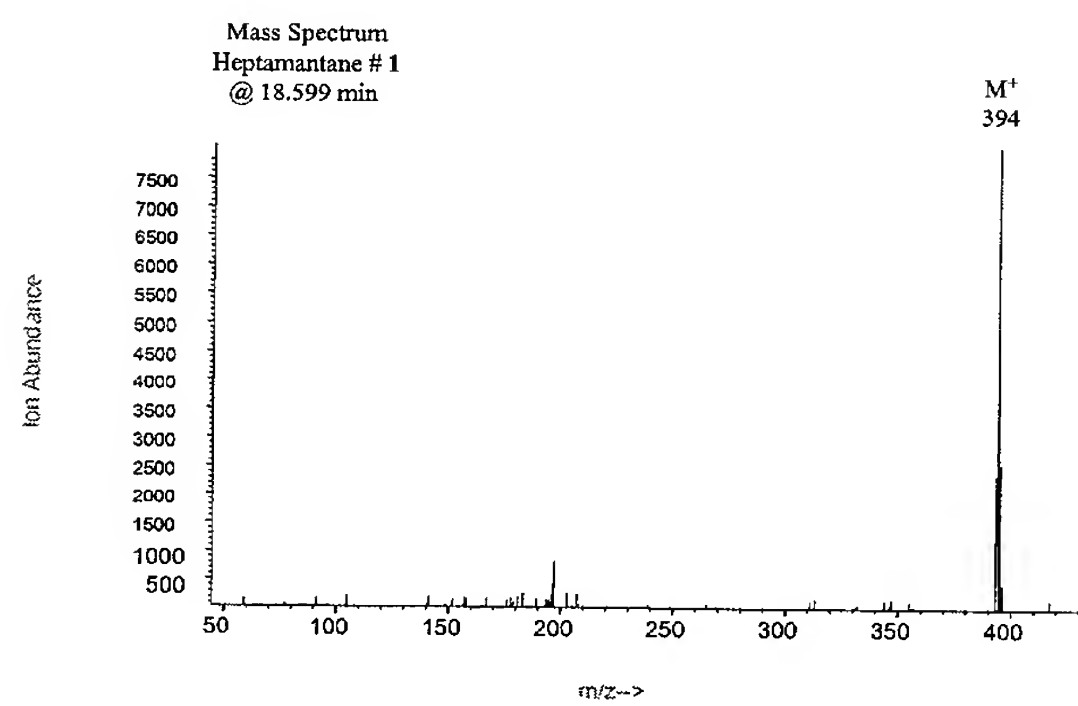




FIG. 30

Number of Diamond Crystal Cage Units	Number of Molecular Formulae	Higher Diamondoid	Molecular Weights							
4	1	Tetramantane	292							
5	2	Pentamantane	344	330						
6	3	Hexamantane	396	382	342					
7	4	Heptamantane	448	434	394	420				
8	5	Octamantane	500	486	446	420	432			
9	6	Nonamantane	552	538	498	524	484	444		
10	7	Decamantane	604	590	550	576	536	496	456	
11	8	Undecamantane	656	642	602	628	588	548	508	534

### Distillation Cuts Made on Atmospheric Resid of Feedstock B (°F)

[illegible]

## Hexamantane

[illegible]

[illegible]